

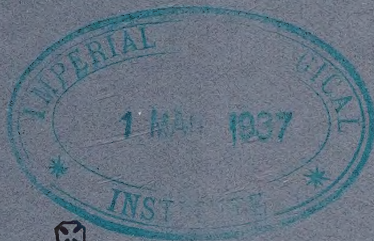
VOLUME XI

No. 10

GOVERNMENT OF NORTHERN IRELAND
MINISTRY OF AGRICULTURE

MONTHLY REPORT

FEBRUARY, 1937



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GOVERNMENT OF NORTHERN IRELAND
MINISTRY OF AGRICULTURE

MONTHLY REPORT

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MINISTRY OF AGRICULTURE

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FEBRUARY, 1937.

*'Tis past; the iron North has spent his rage;
Stern winter now resigns the length'ning day;
The stormy howlings of the winds assuage,
And warm o'er ether western breezes play.*

Now that February is here, one may be permitted to hope that the worst of a very wet winter is past, and that that touch of spring which is "in the air"—though as yet only occasionally—is the forerunner of brighter and, what is more important, drier conditions. Certainly there has been a remarkable mildness of temperatures, which is best reflected in the maintenance of the natural green colour in pastures. Ground conditions will, however, need to improve considerably before seasonal spring work can be commenced as, at the time of writing, the fields are still in a sodden state, and the recent sharp ground frosts have tended to make them even worse. Ploughing is considerably in arrears and, as stated in the seasonal farm notes, no opportunity will need to be lost if this work is to be completed to allow of sowing and planting to be commenced at the normal time.

The high prices ruling for purchased feeding stuffs will, doubtless, influence many farmers who are considering the advisability of growing some wheat and barley for, at least, their own requirements next season.

All arable farmers will be interested in the results of the oat variety tests given on page 34, whilst those engaged in pig production especially should read the results of the barley variety tests on page 36.

AGRICULTURAL CONDITIONS.

AGRICULTURAL CONDITIONS AT 1st FEBRUARY, 1937.

The past month was for the greater part extremely wet and stormy and generally unfavourable to outdoor work on the farm. The almost incessant heavy rains of the first three weeks of January caused further severe flooding in many districts, and the condition of the soil generally rendered it unworkable. The strong winds which reached gale velocity on several occasions also contributed to the bleakness of the rural scene. Temperatures during this period were, on the whole, mild for the time of the year, but, following the change in the wind to the north-east, the last week of the month was much colder and drier than previously, although there were fairly heavy falls of snow on the 28th and 29th days. Fortunately, however, the snow cleared away rapidly during the milder days which immediately followed.

With weather and soil conditions being generally adverse, arable operations were at a standstill on most farms, and only the ploughing of lea land was advanced last month. Much effort will, therefore, have to be made as regards ploughing, during the favourable opportunities occurring in the present month, if sowing and planting operations are to be carried out in good time this season. Other outdoor work, such as the carting out of farmyard manure, the lifting of potatoes from the pits, and the clearing of turnips, also, was considerably hampered by the adverse weather and ground conditions.

On account of the excessive rains farmers generally were still unable to carry out their intention with regard to the sowing of winter varieties of wheat and the general position remains much the same as at this time a year ago. Unless, therefore, the weather improves to allow an increased area to be sown with spring varieties the total area under wheat will not be materially altered as compared with last year.

Pasture lands were mostly in a sodden state, and their grazing value very small. The general absence of severe frosts was, however, reflected in the exceptionally green state of young pastures. The treatment of grasslands with phosphatic manures was carried out in some districts, but elsewhere this work too appears to have been held up by adverse weather conditions. It was reported that larger purchases of phosphatic manures than usual were made this year.

As a general rule supplies of home-grown foodstuffs are at present considered sufficient for normal requirements, although the quality of the fodder is

poor to medium. Should, however, severe weather supervene there is a likelihood that the supplies of hay and roots may be found insufficient on many farms.

Purchased feeding stuffs are fairly satisfactory both as regards the quality and the quantity of stocks available, but prices hardened further on the month, although at the close there was a welcome tendency for them to ease.

As most of the outlying store cattle were hand-fed with fodder and roots, and, in many cases, with concentrated foodstuffs as well, their general condition is fairly good. Some herds, however, were more or less neglected in this respect on account of the shortness of home supplies, and the dearness of purchased foods, and they lost flesh rapidly during the inclement weather, especially in the case of exposed farms. It is also learned that stall-feeding for beef tends to decrease in extent as stores continue to sell at comparatively high prices, and the purchase of extra supplies of concentrated food stuffs at dear prices, for finishing the beasts, is considered to be an unprofitable proposition.

The health of cattle is generally good. Sheep have suffered from the excessive dampness of the pastures, but, as a general rule, the flocks are in a fairly healthy condition. The precautionary measures which have been taken to prevent the spread of liver fluke disease appear to have had the desired effect, as only a few outbreaks have been reported. Foot rot disease in sheep, however, continues to be more severe this winter than usual.

THE CROPS.

WHEAT.—The threshing of this crop was completed in many districts, and yields of fair to good quality grain were generally obtained. In quite a number of cases farmers' supplies are sufficient only for their own requirements, but surplus stocks have been in very good demand at dearer prices varying between 7/6d. and 9/6d. per cwt. according to quality of grain, as compared with from 5/6d. to 6/6d. per cwt. for the corresponding month last year.

OATS.—Fairly good progress was made with the threshing of oats last month despite the rough weather conditions in the earlier part, and approximately two-thirds of the entire crop has now been threshed. As in the case of all the grain crops, oats suffered from the weather at harvest time, and the quality of the grain in some instances, and of the straw in nearly all, is rather less satisfactory than usual.

Decreased supplies of white oats were marketed during January, and prices advanced from the December level of 5/8½d. per cwt. to 6/3¼d. per cwt.

The decreased quantity of oat straw was 8d. dearer on the month at 45/9d. per ton.

BARLEY.—Although the grain was discoloured in some cases, as the result of the very wet weather at harvesting time, the quality of most of the crops which have been threshed is good. Farmers who have home-grown supplies available for stock are fortunate, as there has been a keen demand for barley of late, and prices for small lots sold off farms ranged from 8/6d. to 9/6d. per cwt. compared with 5/6d. to 6/6d. at this period last year.

FLAX.—Good progress was made with the scutching of flax during January, and this work is now generally well advanced. The yields and the quality of the fibre were less satisfactory than usual in consequence of the unfavourable weather preceding and at time of harvesting.

Supplies marketed during January were slightly smaller than for the preceding month, and the monthly average price rose further from 9/4½d. to 9/10½d. per stone. The figure for January, 1936, was 9/- per stone.

POTATOES.—There is little doubt that on most farms potatoes, especially the white varieties, are not keeping as well as last season; but this was to be expected following the excessive rains of the autumn and, more especially, since a considerable proportion of the tubers were found to be diseased or otherwise unsound at lifting time. None the less, some crops are stated to be keeping as well as in dry seasons, and that little rotting or sprouting has occurred where the potatoes are being stored in well-protected pits and houses.

The work of raising potatoes from the pits continued to be hampered by weather and soil conditions. The quality of most of the saleable produce is moderately good, but trade during January remained almost featureless. Purchases for shipping requirements continued more or less restricted in volume, and prices, which hardened during the month, tended downwards towards the close, and for the week ended 30th January, 1937, ranged as follows:—

		Bagged.	Loose.
Up-to-Date (Red Soil)	per ton	£4-0-0	£3-10-0 to £3-15-0
Up-to-Date (Grey Soil)	"	£3-15-0 to £4-0-0	£3-10-0
Arran Consul	"	£4-0-0	—
Arran Victory	"	£3-10-0 to £4-2-6	£3-5-0 to £4-0-0
Arran Banner	"	£3-10-0 to £4-0-0	£3-12-6
Kerr's Pink	"	£3-15-0 to £4-2-6	£3-5-0 to £4-0-0

The following were the quantities inspected weekly for shipment to Great Britain during January last, compared with the corresponding weeks a year ago:—

Week ended			1937	1936
			Tons	Tons
9th January	..		4,885	5,255
16th do.	..		6,964	7,233
23rd do.	..		5,454	5,734
30th do.	..		4,779	6,539
6th February	..		4,939	5,626

Supplies marketed for local consumption during January were much below those of the preceding month, and the average price improved further on the month from 3/11½d. to 4/2d. per cwt. It may be mentioned that the latter figure is almost similar to that for January, 1936.

MANGELS.—The roots are keeping well in storage. Only a very small portion of the crop has been used as yet as turnips are still generally in fair supply.

TURNIPS.—Owing to the very wet weather some crops have yet to be lifted. Although the roots are running short of requirements on some farms, there are still adequate supplies available generally.

Some complaints have been received of the keeping qualities of the roots, but on the whole they are still in moderately good condition. Crown rot is prevalent, more particularly among the heavy crops, but losses on this account are relatively small.

HAY.—Supplies have been somewhat reduced on most farms, and the quantity of moderately good hay now available is rather limited. Smaller supplies were marketed during January than in December, and, whilst the average price of upland hay cheapened on the month by 1/2½d. to 67/8d. per ton, meadow hay was firmer in price at 45/- per ton.

GRASS SEED.—The bulk of the seed has been sold, but it is reported that some farmers are still holding fairly large stocks in the hope of prices improving further.

Rapidly decreasing supplies at markets last month were sold at firmer rates. Italian seed was ¼d. dearer on the month at 10/7d. per cwt., perennial rose from 15/9¼d. to 16/4d. per cwt., and mixed seed was 4½d. dearer at 10/7½d. per cwt. The smaller parcels of crested dogstail marketed at Ballynahinch during January averaged 65/- per cwt. as against 61/1½d. in December.

LIVE STOCK.

CATTLE.—Stores, particularly outliers, have suffered from the rough weather, and only those which received liberal rations of fodder and concentrated foods maintained their condition. It may be mentioned that on account of the high prices ruling for foodstuffs farmers were less generous with hand feeding than usual, and a fair percentage of outlying stock reflected the ravages of the weather and the paucity of keep at the end of the month. Nevertheless the herds on the whole have remained in good health, and “hoose” did not give owners much trouble last month.

There were smaller turnouts at fairs held in January, and the limited supplies of strong, well-conditioned cattle were in good demand at firm rates. With stores selling at relatively dear rates, and prices of feeding stuffs remaining high, stall feeding is stated to be on the decline in most districts.

Dairy cattle, as a rule, have been maintained in normal healthy condition, but the milk yield has declined on the month. Calving has been normal in most areas, only a few cases of abortion being reported. Smaller offerings of dairy cattle were shown at fairs last month, and a keen demand ruled for good dairy cows at prices tending upwards.

SHEEP.—Some flocks are beginning to show the effects of the weather and are in a lean state, but, generally, the condition and health of all classes of sheep are fairly satisfactory considering the adverse conditions. Foot rot continues to be a source of trouble, but liver fluke disease appears to have been held in check. Lambing commenced last month under adverse weather conditions.

The small supplies of sheep at fairs last month were generally a quiet trade, but those of quality and finish sold well locally.

PIGS.—Young pigs were offered in larger numbers at fairs held in January than a month ago, but trade deteriorated slightly during the month, and lower prices ruled at the close. Brood sows were in good number, but those lacking in quality were difficult to cash. For the best types a fair trade ruled at lower prices, varying from £5 to £10 per head for first litter animals, and from £9 to £12 per head for second and third litter sows.

HORSES.—Trade remained keen during January, and the best types of strong, young horses, suitable for farming and city work, were in firm request at unchanged rates of from £30 to £55 each. Good useful workers were sold at from £25 to £35 each. Foals changed hands at from £15 to £24 each, but some exceptionally good types made higher prices. Six-quarter-old animals were mostly sold at from £25 to £30 each.

MILK.—With the milk yield showing a marked general decline on the month, probably as the combined result of the lower quality of home-grown foodstuffs, the dearth of purchased concentrates, and the effects of climatic

conditions, decreased supplies were available for creameries last month, and prices ranged from 4d. to 6d. per gallon, the separated milk being returnable to the farmer.

The average price paid for milk produced in Northern Ireland and delivered to creameries for manufacturing purposes, was 5.82d. per gallon for the month of December, 1936, and the Ministry has made equalisation payment at 0.68d. per gallon in order to bring the average price in respect of this month to 6d. per gallon, as provided by the Milk and Milk Products Act (Northern Ireland), 1934.

It should be noted that under the Regulations creameries are required to distribute the equalisation payments in accordance with the butter-fat contents of the milk received from each supplier. Farmers should, therefore, bear in mind that the actual payments made to them, being calculated on a butter-fat basis, may be at a rate per gallon which may vary below or above this average figure.

THE COST OF LIVING INDEX FIGURE.

The cost of living index figure at 1st January, 1937, was 51, or the same as that for the previous month. At 1st January, 1936, the figure was 47.

THE MARKETS DURING JANUARY.

Supplies of the principal vegetables marketed during January were smaller than in the preceding month and average prices varied but slightly. Cabbage were 1d. dearer at 1/5d. per dozen, savoys ½d. cheaper at 1/4d. per dozen and, at Belfast Market only, cauliflowers were unchanged at 2/4d. per dozen. At this centre and at Portadown leeks and parsley were 1½d. and ¼d. dearer at 5¾d. and 4½d. per bunch respectively. Carrots were 4d. cheaper on the month at 3/9½d. per cwt., whilst parsnips were 2½d. cheaper at 3/8½d. per cwt. and garden turnips ¾d. cheaper at 1/10¾d. per cwt.

Farmers' butter was marketed in smaller quantities than in December and prices generally tended to weaken. Although print butter may be stated to have been sold at former levels at 1/2¼d. per lb., the bulk of supplies, consisting of lump butter, was, however, ¼d. cheaper at 11¼d. per lb. Increased supplies of hen eggs were marketed last month, but duck eggs were less plentiful than in December. Hen eggs continuing their downward trend, dropped sharply by 3¾d. to 8d. per lb., while duck eggs decreased by 2/3½d. to 12/7½d. per 120. Supplies of hens, chickens and ducks, assumed normal dimensions after the usual seasonal increases around Christmas. Hens were 2¼d. cheaper on the month at 1/7½d. each, chickens 2½d. cheaper at 2/3d. each, and ducks 5¼d. cheaper at 1/11d. each. Decreased supplies of wool were marketed in January, and both long unwashed wool and mountain unwashed wool were ½d. dearer at 8¾d. and 7¾d. per lb. respectively.

EXTENT AND PRODUCE OF CERTAIN CROPS IN NORTHERN IRELAND IN 1936.

FLAX.

The average yield of the flax crop in Northern Ireland, in 1936, is estimated at 31.7 stones (of 14 lb.) per statute acre, as against 39.7 stones in 1935, and 32.2 stones in the decennial period 1926-1935.

The following table shows the estimated extent, total produce and average yield per statute acre of the crop in Northern Ireland in 1936, with comparative figures for the year 1935, and the decennial period 1926-1935.

Year.			Extent.	Produce.	Average Yield per statute acre.
			Acres.	Tons.	Stones (of 14 lb.)
1936	..	..	25,376	5,033	31.7
1935	..	..	27,755	6,892	39.7
Average of the ten years' period 1926 to 1935. ..			22,327	4,441	32.2

TURNIPS AND MANGELS.

The estimated average yield of the turnip crop in Northern Ireland, in 1936, is 15.9 tons per statute acre, as against 17.3 tons in 1935, and 17.3 tons in the decennial period 1926-1935. The estimated average yield of the mangel crop in 1936 is 16.1 tons, as against 17.6 tons in 1935, and 16.9 tons in the decennial period 1926-1935.

The following table shows the estimated extent total produce and average yield per statute acre of the turnip and mangel crops in 1936, with comparative figures for 1935, and the ten years' period 1926-1935.

Year.			TURNIPS.			MANGELS.		
			Total acreage.	Total produce.	Average yield per statute acre.	Total acreage.	Total produce.	Average yield per statute acre.
			Acres.	Tons.	Tons.	Acres.	Tons.	Tons.
1936	..	..	31,287	496,128	15.9	1,173	18,829	16.1
1935	..	..	33,358	578,356	17.3	995	17,517	17.6
Average for the ten years' period 1926-1935 ..			39,249	682,371	17.3	1,094	18,560	16.9

AGRICULTURAL PRICES.

The following table shows the average Prices of Agricultural Commodities in Northern Ireland during the Three Months ended 31st December, 1936, together with Comparative Figures for the same period in 1935, and the Average Prices ruling during the Fourth Quarter of the Years 1911-13.

COMMODITY.	Quarter ended 31st December.				Percentage increase or decrease in price as compared with the corresponding period 1911-13.	
	NORTHERN IRELAND.		ULSTER.			
	1936	1935	1911-13	4th Quarter, 1936	4th Quarter, 1935	
Oats (White) per cwt.	£ s. d.	£ s. d.	£ s. d.	%	%	%
Potatoes do	0 5 8½	0 5 2	0 6 6	-12.5	-20.51	-20.51
Hay, Clover do	0 3 8½	0 2 9	0 2 9	+34.85	—	—
" Meadow do	0 2 4½	0 2 7½	0 3 5	-61	-22.56	-22.56
" Grass Seed :—Italian, per cwt	0 3 4	0 2 0	0 3 3	-30.77	-38.46	-38.46
Perennial do	0 10 1½	0 11 5½	0 14 11	-32.26	-23.32	-23.32
Mixed do	0 15 10½	0 13 1	0 11 2	+42.35	+17.16	+17.16
Flax per stone	0 10 6	0 9 1	0 11 5½	-8.20	-20.58	-20.58
Calves (Young) per head	0 9 2½	0 9 2½	0 7 7½	+20.44	+20.44	+20.44
Store Cattle, 6-12 months	1 11 8	1 5 0	1 14 1	-7.09	-26.65	-26.65
" 1-2 years	6 4 8	5 14 2	4 14 0	+32.62	+21.45	+21.45
" 2-3 years	8 9 5	7 14 10	7 7 9	+14.66	+4.79	+4.79
Fat Cattle	10 16 3	9 16 9	10 2 2	+6.97	-2.68	-2.68
" Cows and Bulls	12 17 10	12 13 5	13 11 0	-4.86	-6.49	-6.49
Springers (Cows and Heifers)	10 9 9	10 5 8	12 13 2	-17.15	-18.76	-18.76
Milch Cows (down calved)	15 19 5	15 1 7	14 19 5	+6.68	+72	+72
Lambs (under 12 months)	14 17 11	14 2 0	13 15 8	+8.07	+2.30	+2.30
Store Sheep	1 3 8	1 0 4	1 6 5	-10.41	-23.03	-23.03
Wethers	—	—	1 12 1	—	—	—
Breeding Ewes	0 17 2	0 16 11	—	—	—	—
Fat Sheep, 1-2 years	1 11 6	1 9 0	—	—	—	—
" over 2 years	—	—	1 17 5	—	—	—
Sows for Breeding	1 10 8	1 10 8	1 18 3	-19.83	-19.83	-19.83
Young Pigs, 8-10 weeks old	6 8 3	7 3 2	5 9 5	+17.21	+30.84	+30.84
Pork per cwt.	1 9 7	1 11 2	1 6 2	+13.06	+19.11	+19.11
Butter, Farmers' "	2 19 3	2 13 4	2 12 10	+11.83	+1.52	+1.52
Hen Eggs per lb.	5 9 4½	6 1 4	5 5 6	+3.69	+15.01	+15.01
	0 1 1	0 1 0½	*0 13 11	—	—	—

* All Ireland price per 120.

The agricultural commodity prices for the last quarter of 1936 were generally higher than in the corresponding period of 1935. The most important item among the crop prices was the rise in the price of potatoes by almost 35 per cent. above the 1935 figure, which was similar to the pre-war basic price. The sequel to the very wet harvest may be observed in the higher prices of home-grown feeding stuffs this season, and oats recorded a fair advance in price, and hay, more especially clover, was appreciably dearer last quarter than a year ago. The principal grass-seed in Northern Ireland, Perennial, was selling at considerably advanced prices on the year and was slightly more than 42 per cent. dearer than before the war, but prices for Italian were rather disappointing and fell further below the 1911/13 level. Mixed seed was a little dearer than in 1935. The flax crop, which suffered damage from the heavy rains at harvest time, was, up to end of December, selling at prices which were similar to those of a year ago.

Live stock prices generally were better on the year. Store cattle again furnished the most satisfactory features, all classes advancing further from their pre-war levels. Young calves also were appreciably dearer, whilst fat and dairy cattle prices last quarter were all slightly better than in 1935. The price of lambs (under 12 months old) improved on the year, and quotations for other sheep classes were generally a little better. Sows for breeding and young pigs were cheaper last quarter than in 1935, but in this section the principal item, pork, improved in price on the year. The table also shows that there was a considerable drop in the price of farmers' butter, and that hen eggs were a shade dearer last quarter than in 1935.

CENSUS OF LIVE STOCK.

A complete census of live stock was taken at the 1st January last, and the results are shown in the statement hereunder. It will be observed that all classes of cattle are fewer in number than in January, 1936, and with the exception of heifers in calf, are fewer than in June, 1936. Breeding sheep are in greater numbers than a year ago, or in June last, and a further increase in the sheep population at the 1st June next may be anticipated. The numbers of pigs continue to increase, and all classes are recorded in greater numbers than in 1936, except boars and young pigs, which show a small decline of 0.4 and 2.2 per cent. respectively as compared with June last. Following the Christmas trade, poultry are fewer in number than in June last, but both turkeys and ordinary fowl have increased in number as compared with a year ago, whilst geese and ducks are fewer in number.

Statement showing the numbers of Cattle, Sheep, Pigs and Poultry in Northern Ireland as at 1st January, 1937, 1st June, 1936, and 1st January, 1936, and the percentage changes in the numbers at the 1st January, 1937, as compared with the numbers at the 1st January, 1936, and the 1st June, 1936.

	1st January 1937	1st June 1936	1st January 1936	% Change January 1937 as compared with	
				June 1936	January 1936
Cattle—					
Bulls (for service) ...	4,341	4,606	4,403	— 5.8	— 1.4
Milch Cows ...	244,038	249,802	250,496	— 2.3	— 2.6
Heifers in Calf ...	30,284	25,128	36,049	+20.5	—16.0
Other Cattle—					
Two years old and upwards	70,839	81,493	78,248	—13.1	— 9.5
One year and under two years	163,899	198,876	178,331	—17.6	— 8.1
Under one year ...	199,153	209,748	204,501	— 5.1	— 2.6
Total ...	712,554	769,653	752,028	— 7.4	— 5.3
Sheep—					
Rams (for service) ...	16,662	10,731	16,028	+55.3	+ 4.0
Ewes (for breeding) ...	418,770	381,526	413,189	+ 9.8	+ 1.4
Other Sheep—					
One year old and upwards	24,467	39,199	28,697	—37.6	—14.7
Under one year ...	70,418	403,298	63,805	—82.5	+10.4
Total ...	530,317	834,754	521,719	—36.5	+ 1.6
Pigs—					
Boars (for service) ...	1,657	1,663	1,554	— 0.4	+ 6.6
Sows (for breeding) ...	57,171	56,509	52,133	+ 1.2	+ 9.7
Other Pigs—					
Six months old and upwards	43,184	32,476	32,039	+33.0	+34.8
Over three and under six months old	203,545	170,953	173,057	+19.1	+17.6
Under three months old ...	254,285	260,053	229,374	— 2.2	+10.9
Total ...	559,842	521,654	488,157	+ 7.3	+14.7
Poultry—					
Turkeys ...	67,361	389,273	60,495	—82.7	+11.3
Geese ...	39,296	139,017	40,155	—71.7	— 2.2
Ducks ...	350,912	498,727	365,468	—29.6	— 4.0
Ordinary Fowl ...	6,109,952	9,542,730	5,855,246	—36.0	+ 4.4
Total ...	6,567,521	10,569,747	6,321,364	—37.9	+ 3.9

THE GRADE AND DEAD WEIGHT SCHEME

I. CATTLE.

(A subsequent article will deal with sheep and lambs).

The function of this Scheme is to provide farmers with an alternative outlet for their fat stock by bringing them into direct contact with the wholesale butchers at the chief cross-Channel centres. The Scheme was devised and provided with adequate safeguards by the English Ministry of Agriculture and Fisheries, who, although not parties to the contract, exercise through their Head Graders a supervision that ensures a fair deal to both farmer and wholesaler.

Farmers who wish to try this method of selling stock should get into touch with the Secretary of their local farming organisation, who may arrange for several consignments to be sent together. Co-operative marketing, in view of the cost of carriage, has obvious advantages, and the Secretaries concerned, to whom the cheques for the total consignments are sent, will make the necessary deductions for carriage, etc., before passing on the net amount to individual producers. Two things should be remembered: first, that the cost of carriage is borne by the sender; second, that the cost of the insurance is distributed between wholesaler and sender, the wholesaler being responsible for making the insurance arrangements.

The Scheme is simple to work, and constitutes what might be called "an auction by post". The Secretary of the local organisation, on behalf of the farmers who wish to sell stock under the Scheme, writes to the English Ministry's Head Grader at Manchester or Liverpool, or one of the other authorised centres, informing him that his organisation has so many cattle for sale, stating the class (maiden heifers, bullocks, cow heifers, etc.), the breed, the approximate live weight, and the date on which they would be ready for despatch. The Head Grader then acts as auctioneer for the producer and asks the various wholesalers for quotations. He selects the best of these and forwards them to the Organisation Secretary, with instructions regarding the marking and date of despatch of the stock in the event of the quotations being accepted. If the Organisation Secretary considers that having regard to the cost of carriage, etc., and the ruling live weight prices, the quotations are not sufficiently favourable, he has only to inform the Head Grader accordingly, and the whole transaction can be dropped with no charge or obligation to either party. The contract only becomes binding and valid if and when the quotations are accepted. The stock must then be marked as specified and despatched so as to arrive at the time and place agreed upon.

It is important that producers should be able to compare quotations given under the Grade and Dead Weight Scheme with the prices ruling in the live weight markets at home. Here a word of explanation may be called for. The quotations are given in terms of lb. dead weight, and to compare them with live weight cwt. prices it is necessary to convert killing-out percentage into lbs. per cwt. (54% is approximately 60 lbs. per cwt., 55% is 62, 56% 63, and so on). Intending users of this Scheme should accordingly think not in terms of killing-out percentage, but in terms of lbs. dead weight. Moreover, as the Scheme classifies carcasses into grades, they should study the definitions of quality laid down for the purposes of the Scheme, and given in the English Ministry's Marketing Leaflet No. 75. Thus the definition of a Grade 1 home-killed bullock or heifer is as follows:—

“A steer or maiden heifer beef carcass having excellent conformation, finish and quality. The conformation may not reach the ideal in all respects as defined for the Super Grade, but should be free from any pronounced faults. The hind-quarters should be heavier than the forequarters. The spinal processes of the chine bones should terminate in soft pinkish-white cartilages. The finish should be excellent, although the ideal as defined for the Super Grade may not be reached in all respects. The fats should be creamy in colour. The flesh should be firm, velvety, very finely grained, and of a light rosy or cherry-red colour, and in the thickest cuts should be well marbled.”

An ordinary animal will probably fetch as good a price when sold alive in the saleyards as when sold across Channel as a carcass under the Scheme, but where good quality animals are concerned, producers will obviously benefit from a Scheme where payment is made in respect of every dead weight lb. and where quality is discerned, and paid for, not on the hoof but on the block. For example, assuming that second quality saleyard prices are in the neighbourhood of 33/- per cwt. an animal weighing 9 cwt. and killing out at 54% would fetch about £15 (less commission) at the saleyards, and, if eligible, another £2 3s. 9d. in subsidy. A killing out ratio of 54% is equivalent to 60 lbs. per cwt. Accordingly, this animal would weigh as a carcass 540 lbs., and a dead weight quotation of 6½d. per lb. would bring in about £15. The subsidy is reckoned at the rate of 1d. per lb. dead weight, and works out on this animal the same as on the live weight basis.

With animals killing out at higher ratios than 54%, however, the prices offered by the Grade and Dead Weight Scheme are likely to be higher than those normally ruling at the saleyards, for the simple reason that under the Dead Weight Scheme payment is made on results. For example, a 9 cwt. good quality beast killing out at 58% would fetch in the saleyards, at 34/- per cwt., £15 6s. 0d. (less commission), and, if eligible, £2 3s. 9d. as subsidy.

On the block the beast will weigh about 585 lbs. If the quotations offered are 7d. for Grade I, and 6 $\frac{3}{4}$ d. for Grade II, then the beast will fetch £17 1s. 3d. if it is Grade I, and £16 9s. 0d. if it is Grade II, a gain of 35/3 and 23/- respectively over the saleyard price. Moreover, at the present rates the subsidy payment in respect of this beast would be £2 8s. 9d., a gain of 5s. 0d. over the live weight subsidy on the same beast.

Counterbalancing these improved prices are certain charges that have to be met. The chief of these is the cost of carriage, which comes to about 16/- per animal from Belfast to Manchester or Liverpool. There are also insurance charges amounting (as far as the sender is concerned) to 2s. 6d. per animal. The insurance charges, it should be mentioned, cover, in addition to the usual risks, the possibility of the wholesale carcase butcher becoming insolvent. It is likely that negotiations at present in progress will result in detention risks also being covered. Lairage and feeding charges amount on the average to 2/- per animal. Finally, there is the grading fee (including the Cattle Fund certificate, if issued), which is 2/- per animal. The total charges per animal would thus amount to about 22/-, made up of 16/- for the cost of carriage, 2/6 for insurance, 2/- for lairage charges, and 2/- for the grading fee. But it must not be forgotten that the commission charges on animals sold alive in the saleyards are usually in the neighbourhood of 10/-. Accordingly the net extra costs of the Dead Weight Scheme are only from 10/- to 12/- per beast.

The value of this and similar Schemes does not lie, however, in the actual improved prices received for stocks shipped—although these are often considerable—nor in the fact that they enable farmers to sell direct to wholesale markets with firm prices bid before the stock leaves the farm. Even the quantity of the stock shipped does not give a fair indication of the Scheme's importance. Its value lies rather in providing an alternative market for fat stock, and in thus steadying the home market and preventing the periodic "gluts" which are liable to have a depressing effect on saleyard prices.

MARKETING SCHEMES.

AGRICULTURAL MARKETING (PIG INDUSTRY) ACT (N.I.), 1934 :—

PIG PRICES FOR FEBRUARY, 1937.

The Pig Industry Council for Northern Ireland have announced the following prices for dead pigs sold by producers to curers in Northern Ireland in February, 1937.

Weight Class. (Dead Weight).	Grade 1.	Grade 2.	Grade 3.		Partly Black pigs.
Under c.1.0.21	56/5	56/5	56/5		56/5
c.1.0.21 to c.1.2.3 ..	67/5	64/5	61/5		5/-
Weight Class. (Dead Weight.)	Grade A.	Grade B.	Grade C.	U.L. or U.F.	below relevant Grade Price.
c.1.2.4 to c.1.2.14 ..	67/5	64/5	61/5	58/5	
c.1.2.15 to c.1.3.14 ..	67/5	64/5	61/5	58/5	
c.1.3.15 to c.2.0.0 ..	64/5	61/5	58/5	55/5	
c.2.0.1 to c.2.0.14 ..	58/5	55/5	52/5	49/5	

U.L.—Under Grade A. measurements. U.F.—Over Grade C. measurements.

Authorised cuts :—

- (a) Broken ham (dry, shank and/or shell bone break)—5% of the gross value of the carcase.
- (b) Broken ham (wet break)—12½% of the gross value of the carcase.
- (c) Shoulder-stuck carcase—3/- per shoulder affected.

The gross value of a carcase is the product of the dead weight and the relevant grade or other price per cwt.

Where portion of a pig carcase weighing not more than c.2.0.14 is condemned and the existence of disease could not reasonably have been known to the producer before despatch to the curer the appropriate grade price shall apply. If the carcase is wholly condemned on account of disease, the existence of which could not reasonably have been known to the producer before despatch to the curer, the relevant Grade 2 or Grade B price shall apply.

The foregoing prices do not apply in the case of (a) wholly black pigs, boars, rigs or stags, sucked sows, and pig carcasses weighing over c.2.0.14, and (b) pigs visibly diagnosable as diseased before despatch by the producer and subsequently condemned; emaciated or screw pigs; smelling pig carcasses with definite indications of putrefaction, and pig carcasses badly abused or damaged before being handed over by the producer to the curer.

PRICES FOR WILTSHIRE PIGS SOLD ON DIRECT CONTRACT.

In the case of pigs sold alive under direct contract to Wiltshire curers the prices per dead cwt. payable for pigs delivered in respect of the month of February, 1937, are as follows:—

Weight Class. (Dead Weight.)	Grade 1.	Grade 2.	Grade 3.	Unsuitable.
Under c.1.0.21 ..	60/5	60/5	60/5	58/5
c.1.0.21 to c.1.2.3 ..	73/5	70/5	67/5	60/5
c.1.2.4 to c.1.2.7 ..	Grade A. 68/5	Grade B. 65/5	Grade C. 62/5	U.L. or U.F. 59/5
Over c.1.2.7 ..	On the same basis as pigs sold dead.			

PRICES FOR LIVE PIGS SOLD TO THE PIGS MARKETING BOARD (NORTHERN IRELAND).

(a) In the case of pigs sold alive to the Pigs Marketing Board during February, 1937, and resold to Wiltshire curers in Northern Ireland the prices, according to carcase grade, are as follows:—

Live Weight.	Grade 1.	Grade 2.	Grade 3.	Unsuitable.
Under c.1.2.9 ..	45/3	45/3	45/3	43/9
c.1.2.9 to c.2.0.4 ..	55/—	52/9	50/6	45/3

(b) In the case of pigs sold alive to the Pigs Marketing Board during February, 1937, and not disposed of to Wiltshire curers the prices per live cwt., according to live pig grading, are as follows:—

Live Weight.	Grade 1.	Grade II.	Grade III.	Unsuitable.
Under c.1.2.9 ..	42/3	42/3	42/3	40/—
c.1.2.9 to c.2.0.4 ...	53/6	51/3	49/—	46/9
c.2.0.5 to c.2.1.14 ..	50/6	48/3	46/—	43/9
c.2.1.15 to c.2.2.7 ..	48/3	46/—	43/9	41/6
c.2.2.8 to c.2.2.21 ..	43/9	41/6	39/3	37/—

These prices do not apply to live pigs outside the above weights, live pigs intended for breeding, live boars, live suckled sows, rigs or stags, injured or diseased pigs, live in-pig gilts, or live pigs sold (on contract registered with the Pig Industry Council) to curers in Northern Ireland. All other live pigs inside the weights c.1.2.0 to c.2.2.21 can be sold only to the Board.

AUTHORISED DEDUCTIONS.

Every pig (dead or alive) sold to a curer or to the Pigs Marketing Board is subject to a contribution at present amounting to 1/-.

In addition to this amount, a deduction not exceeding 4d. per pig may be made in the case of sales to curers to cover insurance, so that the producer will not suffer financial loss if the carcase is condemned as unfit for human consumption.

In the case of pigs sold to the Board, there is a deduction of 2/6d. per pig for marketing charges.

COST OF STANDARD PIG RATION.

The average retail cash price per cwt. of the standard ration, as calculated by the Ministry for the sixteen weeks' period ended 23rd January, was 8/11½.

The following is the ration upon which the feeding cost is based:—

Maize Meal	...	...	...	30%
Barley Meal	...	...	...	30%
Pollards (White)	...	...	...	20%
White Bran	...	...	...	10%
Meat Meal (60% Protein)	...	...	...	10%

GRADING STATISTICS.

Table showing the percentages of pig carcasses falling within the weight and grade classes indicated during December, 1936.

Grade A.				Grade B.				Grade C.				Total
1	2	3	4	1	2	3	4	1	2	3	4	
18.83	17.63	2.84	.48	11.52	18.70	3.93	1.15	3.40	7.86	1.17	.29	87.85

UNGRADED CARCASSES.

Under Grade A measurements. U.L.	Over Grade C measurements. U.F.	Wholly condemned. U1.	Wholly black, injured or damaged. U2.	Overweights, Underweights, boars, sows, etc. X.	Partly Black. Y.	
.05	2.32	.05	.62	9.09	.02	12.15
Total						100%

The foregoing figures have been calculated from the purchase and grading statements which the curers furnish to the Ministry. The average figures over the month work out as follows:—Price per head £4 18s. 8d.; price per cwt., £2 19s. 9d.; average weight of carcase, 1c. 2q. 17l.

The following table gives the result of an analysis of the purchase and grading statements furnished by Wiltshire bacon curers in respect of live pigs delivered on direct contract by producers during the month of December, 1936.

Weight Class.	Grade 1.	Grade 2.	Grade 3.	Unsuitable.	Total
Under c.1.0.14	.38	.60	.07	—	1.05
c.1.0.14 to c.1.2.7 ..	42.60	38.65	12.24	.20	93.69
c.1.2.8 to c.1.2.10 ..	.32	.82	.72	—	1.86
c.1.2.11 to c.1.2.14 ..	.07	.85	.62	—	1.54
Over c.1.2.14	.20	.59	1.07	—	1.86
	43.57	41.51	14.72	.20	100.

The average price per cwt. in respect of these deliveries works out at £3 5s. 5d. after making allowance for levy deductions.

The average weight works out at c.1.1.17, the net average price per pig being £4 11s. 10d.

NORTHERN IRELAND PIG PRICES FOR FEBRUARY—DECEMBER, 1937.

The Pig Industry Council for Northern Ireland, when fixing pig prices for the present month, announced that they would devise a method of fixing prices for the remainder of the year which would take Northern Ireland conditions into account, and would not be dependent directly upon conditions in Great Britain.

The Council have now reached a decision in this matter, and have determined, with the approval of the Ministry of Agriculture, that pig prices shall be fixed by reference to two inter-related price-fixing formulae. The roll and ham price will be ascertained each month based upon the cost of feeding stuffs and the prices realised for roll bacon and hams and fresh meats. The Wiltshire pig price will also be ascertained in a similar manner.

As producers are aware, the Greig scale of prices which had been fixed in Great Britain—and which had been adopted for Wiltshire weight pigs in Northern Ireland—did not take into direct account the price of bacon, but only the price of feeding stuffs. The Greig scale gave high prices in the spring

months, but low prices in the summer. The price formulae adopted by the Council will mean that in future, month by month, producers will receive the highest price that can be paid, having regard to the price of bacon. This means that in future, no matter what developments may take place in Great Britain, the basis for the Pigs Marketing Scheme in Northern Ireland is assured, because producers will receive for their pigs the price that the bacon market justifies.

In order to link the Wiltshire formula and the roll and ham formula together the following arrangement has been adopted :—

When the roll and ham price, as ascertained by the formula, is not more than 4s. below the basic Wiltshire price, the roll and ham price will apply in the case of pigs of c.1.2.4 and over, dead weight, while the basic Wiltshire price for lighter pigs will be fixed at 4s. per cwt. above the basic roll and ham price. On the other hand, if the Wiltshire formula price is more than 4s. above the roll and ham formula price the former will apply for light-weight pigs up to c.1.2.3 dead weight, and the roll and ham pig price will be fixed at 6/- per cwt. below the Wiltshire formula price.

The following examples illustrate how this arrangement will operate in practice :—

Prices ascertained by Formula.		Fixed Basic Prices.	
Wiltshire.	Roll and Ham.	Wiltshire.	Roll and Ham.
66/-	63/6	67/6	63/6
69/6	62/6	69/6	63/6
69/-	64/-	69/-	63/-

Producers should note that the present weight ranges and methods of grading are unaltered, and that there may be a special price inducement in the case of live pigs weighing from c.1.0.21 to c.1.2.3 dead weight, which are sold either on direct contract to Wiltshire curers or to the Pigs Marketing Board and resold to Wiltshire curers. It may be pointed out that the price which the producer will receive for such pigs sold alive will be not less than 70/- per dead cwt. during February.

MILK AND MILK PRODUCTS ACT (N.I.), 1934.

MILK PRICES.

The following statement was recently issued on behalf of Lt. Col. A. B. Mitchell, F.R.C.S.I., D.L., M.P., and Capt. J. Maynard Sinclair, two of the members of the Joint Milk Council appointed by the Minister of Agriculture :—

“ As the public are aware, strong representations have been made to the Joint Milk Council during recent months in regard to the level of prices for milk paid to farmers under the Council's Determination of the 30th July, 1936.

It is contended on behalf of producers that the advance in the price of feeding stuffs, which has occurred during recent months, has rendered the prices which were fixed for the year 1936/37 uneconomic. This question was discussed at a meeting of the Council in October, when the Producers' representatives on the Council urged that an increase in prices should take place. Agreement could not be reached between the different interests represented on the Council and the matter was, therefore, referred to the members of the Council appointed by the Minister of Agriculture for decision.

We decided on that occasion that no change in prices should take place, although we recognised that there had been some increase in the costs of production of milk, and considered that producers were justified in urging an increase in prices. We pointed out, however, that it was in the interests of all concerned that prices should be fixed for relatively long term periods, and that frequent fluctuations in prices were detrimental to the interests of producers as well as of consumers.

Since our meeting in October a further rise in the prices of feeding stuffs has taken place, and a further meeting of the Joint Milk Council was held on the 13th instant to consider the position. We regret that at that meeting it was again impossible to reach an agreement upon the question of an increase in prices. From the evidence before us we are satisfied that there has been a substantial rise in the price of feeding stuffs between July of last year when our Determination was made and the present time, and this is borne out by figures submitted to us by the Ministry of Agriculture.

In view of the fact that a definite margin to distributors has been agreed to for the period ending 31st August of this year pending a detailed investigation into the costs of milk distribution, we have felt ourselves precluded from making any reduction in the distributive margin at the present juncture. We are, therefore, forced to the conclusion that any improvement in the position of the farmer must be effected by an increase in the prices to the consumer. We regret the necessity for this course and under normal circumstances we would have maintained the existing scale of prices in the hope of effecting an improvement in the position of the producer during the season 1937-38.

We feel, however, that the increase in the prices of feeding stuffs has now reached such a magnitude that production is being curtailed owing to unremunerative prices and that it is unfair to call upon the producer to bear the burden unaided. We have, therefore, decided that the existing Determination of the Council made last July, shall be modified so that during the period from Sunday, 24th January, until Saturday, 8th May, 1937 (inclusive) the price paid to producers by distributors shall be not less than 1/4d. per

gallon in the case of Grade A milk and shall be 1/2d. per gallon in the case of Grade B and Grade C milk. We have also decided that during this period the level of retail prices in the Belfast area shall be as follows :—

Grade A milk—not less than 2/2d. per gallon.

Grade B milk—not less than 2/0d. per gallon.

Grade C milk—not less than 1/10d. per gallon.

Outside the Belfast area retail prices are minimum prices and we do not propose any modification of the existing minimum figures.

At the 9th May prices to the producer and to the consumer will revert to their existing levels and will continue at those levels until 31st August.

In the interests of the poorest consumers in the Belfast area who are at present buying milk of Grade C at 2d. per pint or 1d. per half-pint, we have determined that the reduction which may be made in the retail price when milk is sold over a counter shall, so far as the Belfast area is concerned, be increased from 4d. per gallon to 6d. per gallon. Such milk may, therefore, continue to be sold by shops at the present prices.”

A Determination of the Joint Milk Council for Northern Ireland was subsequently issued amending, for the period 24th January, 1937, to the 8th May, 1937 (inclusive), the Determination relating to the twelve months ending 31st August, 1937. The amendments are summarised below and save for such amendments the original Determination remains in force. Further, all contracts between producers and distributors continue in force with the necessary amendment in respect of the price to be paid to the producer.

1. PRODUCERS' PRICES—

The conditions relating to the sale of milk by a licensed producer to a licensed distributor remain unchanged save that the following prices shall apply:

(a) For level daily deliveries:

Grade A—Not less than 1/4d. per gallon.

Grade B—1/2d. per gallon.

Grade C—1/2d. per gallon.

(b) For varying daily deliveries:

Grade A—Not less than 1/7d. per gallon.

Grade B—1/5d. per gallon.

Grade C—1/5d. per gallon.

2. RETAIL PRICES—

- (a) In the County Borough of Belfast, the Borough of Bangor, the Urban Districts of Carrickfergus, Holywood, Lisburn, and Newtownards, the Rural Districts of Belfast and Castlereagh, the portion of the Hillsborough Rural District comprised in the District Electoral Division of Breda, the portions of the Larne Rural District comprised in Eden town, the District Electoral Division of Carrickfergus Rural and the townland of Kilroot, the portions of the Lisburn Rural District comprised in the District Electoral Divisions of Dunmurry, Lambeg and Malone, the following retail prices shall apply:

Grade A—Not less than 2/2d. per gallon.

Grade B—2/0d. per gallon.

Grade C—1/10d. per gallon.

provided that 6d. per gallon less than the appropriate retail price may be charged where the milk is collected by the purchaser at the vendor's premises.

- (b) In other areas the existing retail prices (which are minimum prices) and conditions continue to apply.

3. EXCEPTIONS—

- (a) Milk sold—

- (i) to public hospitals;
- (ii) to an Education Authority for the provision of meals for school children or
- (iii) to a nursery school recognised by the Ministry of Education, Northern Ireland;

may be sold at not less than 1/4d. per gallon for Grade A milk and not less than 1/2d. per gallon for Grade B or Grade C milk.

- (b) The conditions relating to milk intended for the manufacture of ice cream remain unaltered save that the minimum price is 1/3d. per gallon.

MILK PRODUCERS.

Number of Licence Holders by Counties, Grades and Classifications on 31st December, 1936.

	GRADE A.				GRADE B.				GRADE C.				ALL GRADES.			
	Total	P.R.	P.W.	C.S.	Total	P.R.	P.W.	C.S.	Total	P.R.	P.W.	C.S.	Total	P.R.	P.W.	C.S.
Borough of Belfast	—	—	—	—	20	15	12	—	29	23	12	—	49	38	24	—
Co. Antrim	13	9	10	—	574	160	478	84	1,630	542	268	955	2,217	711	756	1,039
Co. Armagh	3	3	1	3	24	18	7	3	549	274	4	309	576	295	12	315
Co. Down	34	18	23	3	245	116	147	20	1,056	512	241	366	1,335	646	411	389
Co. Fermanagh	—	—	—	—	7	7	2	3	1,348	158	10	1,300	1,355	165	12	1,303
Co. Londonderry	4	4	4	2	52	40	19	16	636	313	24	351	692	357	47	369
Co. Tyrone	5	3	1	2	26	25	4	10	1,355	311	82	1,142	1,386	339	87	1,154
Totals	59	37	39	10	948	381	669	136	6,603	2,133	641	4,423	7,610	2,551	1,349	4,569

P.R.—Producer Retailer. P.W.—Producer Wholesaler. C.S.—Creamery Supplier.

MILK DISTRIBUTORS.

Number of Licence Holders by Counties, Grades and Classifications on 31st December, 1936.

COUNTY.	GRADE.						Total.	CLASSIFICATION.	
	A	AB	ABC	AC	B	BC		Primary.	Sub.
Belfast Borough	5	17	34	2	174	138	1,227	296	984
Londonderry Boro.	1	—	—	—	5	1	33	25	8
County Antrim	1	4	2	—	39	13	118	100	26
County Armagh	—	—	—	—	3	—	6	6	—
County Down	5	5	6	1	51	22	153	122	37
County Fermanagh	—	—	—	—	—	—	9	9	—
County Londonderry	4	1	1	—	12	2	25	22	3
County Tyrone	—	—	—	—	5	1	19	19	—
Totals	16	27	43	3	289	177	1,590	599	1,058

Total number of Licences issued in respect of Multiple Premises and several grades under one licence number = 2,123.

Primary—Purchasing direct from Producers. Sub.—Purchasing from another Distributor.

NOTES AND MEMORANDA.

ARGENTINE TRADE AGREEMENT.

The importance of the recently concluded Argentine Trade Agreement to the live stock industry in the United Kingdom may be judged from the fact that two-thirds of our total beef imports come from the Argentine and that in this agreement duties are being imposed upon beef and veal imported from that country thus giving Argentina less favourable treatment than she has received during the last three years.

Under the Roca agreement of 1933 all meat from the Argentine (except canned meats and meat extracts) was guaranteed free import into the United Kingdom but provision was made for quantitative regulation of imports of frozen beef, mutton and lamb according to the programme embodied in the Ottawa Agreements of 1930. Since 1933 the Ottawa programme has been carried out to the full and shipments of frozen beef and mutton and lamb have been reduced to 65% of the imports in the Ottawa standard year—July 1931 to June, 1932.

The most important feature of the agreement which now replaces the Roca agreement is that duties may be placed on Argentinian beef which will not exceed 1d. per lb. on chilled beef, 3d. on frozen beef and 20% ad. valorem on most other classes of beef. The proceeds of these duties will amount to rather more than 3 million pounds a year will cover part of the subsidy on cattle fattened in the United Kingdom which is provided for under the new Livestock Bill, at present before the Imperial Parliament. Mutton and lamb will continue under the new agreement to be imported duty free, as the position of the home producer of these classes of meat has been safeguarded satisfactorily by means of import regulation.

The second important provision of the agreement is for the continuance of quantitative regulation of all classes of meat. Imports of beef are stabilised roughly at the 1935-36 level. By this means the United Kingdom, which is the world's greatest beef market, will be safeguarded from the pressure of increased supplies of beef which would decrease the benefit of the subsidy. As regards chilled beef, the arrangement by which imports in 1935 had been reduced by 10% of the Ottawa year level is to continue under the Agreement. In 1937 imports can, if necessary, be reduced by 2%, a further 2% in 1938, and 1% in 1939.

Imports of FROZEN beef, mutton and lamb from Argentina which have been reduced since Ottawa by roughly one-third are to be stabilised for 1937 at roughly the present level: as regards imports of mutton and lamb a further reduction by 10% is permissible in 1938.

As a result of reductions since the Roca Agreement, the Argentine now supplies less than 20% of total imports of pork and an almost negligible proportion of total supplies on the United Kingdom market: thus imports of pork are to be stabilised at the present level.

The Argentine Government has agreed in principle to co-operate in a scheme for the regulation of supplies of beef to this market through an International Conference and it is hoped to conclude a supplementary Agreement on this point at an early date. The Agreement remains in force until the end of 1939 when it may be terminated at any time, subject to six months' notice being given.

WHEAT ACT, 1932.

REDUCTION OF QUOTA PAYMENT.

In pursuance of the powers conferred upon him by the Wheat Act, 1932, the Minister of Agriculture and Fisheries, on the recommendation of the Wheat Commission, has made the following Orders:—

- (1) THE WHEAT (QUOTA PAYMENTS) NO. 1 ORDER, 1937, which prescribes that the amount of the quota payment which every miller and every importer of flour shall be liable to make to the Wheat Commission in respect of deliveries of flour during the period commencing 27th January, 1937, shall be 2.4 pence per cwt. (equivalent to sixpence per sack of 280 lbs.). This is a reduction of 6d. per sack on the rate which has been in force since the 1st November, 1936.

The new Quota Payments Order comes into operation on Wednesday, the 27th January, 1937, and quota payments will accrue due at the new rate in respect of all deliveries of flour taking place on or after that day. In cases where flour or bread is exported on or after the 27th January, 1937, the repayment of quota payment to the exporter will be made by the Wheat Commission at the new rate.

- (2) THE WHEAT (ANTICIPATED SUPPLY) NO. 1 ORDER, 1937, which prescribes that the quantity (called the "anticipated supply") of home grown millable wheat of their own growing which the Minister anticipates will be sold by registered growers during the cereal year ending 31st July, 1937, will be 25,750,000 cwts. This Order supersedes the Wheat (Anticipated Supply) No. 2 Order, 1936, under which the "anticipated supply" was prescribed as 26,000,000 cwts.

BUTTER AND CREAM MARKETING BOARD (NORTHERN IRELAND).

ELECTION OF MEMBERS.

Arrangements are now being made in the Ministry for the conduct of the election of members to the Butter and Cream Marketing Board, Northern Ireland. The latest date for the receipt of nomination papers was the 20th February and the names of persons nominated have been published in the Press.

Voting papers will be sent not later than the 10th March to all registered producers whose names appeared on the Register at the 1st February, and in order to count in the election must be returned properly completed to the Ministry not later than the 20th March, 1937. Each producer is entitled to one vote in respect of each gallon of milk delivered to him during the calendar year 1936 for the purpose of manufacture into butter or for the extraction of cream for sale as such.

Producers will be entitled to allot their votes amongst candidates in such manner as they wish provided that the total number of votes cast does not exceed the total number to which they are entitled. The count of the votes will take place as soon as possible after the last date for receipt of the voting papers and will be notified to each registered producer.

MARKETING OF VEGETABLES.

THE ULSTER VEGETABLE GROWERS' ASSOCIATION.

The formation of this Association marks a further experiment in Agricultural Marketing, and the success of its activities during the next few months will be watched with interest by those who consider that the initiative in marketing schemes should come from the producer rather than from the legislator.

The idea of a Vegetable Growers' Association originated in North Down, from which district the majority of the present members of the Association are drawn. Its aim is to work up a cross-Channel market for the vegetable produce of Northern Ireland by means of a voluntary scheme of farm grading and marketing. The increased quantity of vegetables available in the Belfast market this season has emphasised the need for an alternative outlet; live stock producers who have sent cattle or lambs to England under the Grade and Dead Weight Scheme know what a steadying effect this alternative market has on home prices, an advantage that cannot be calculated simply in terms either of the quantity of the stock shipped across Channel or even of the improved prices secured on stocks so shipped. In

the case of vegetables a cross-Channel trade would both steady the Belfast Market and also mean considerably higher prices to those shipping good quality vegetables to England. "Good quality" is, however, an essential condition and that is why the Vegetable Marketing Scheme contains provisions for voluntary grading.

The Scheme is for the present experimental only and as a result requires careful observance of the various safeguards voluntarily laid down. Those who wish fuller information regarding the Scheme are advised to get in touch with the Ulster Agricultural Organisation Society, 16, Donegall Square South, which has given the Scheme every support and encouragement.

The Scheme is simple in operation and involves members in three main obligations:—

1. To grade and pack produce in accordance with the Association's standards and to affix the authorised label of the Association to each consignment. This is to be done on the farm.
2. To allow such consignments to be examined before shipment by the Ministry's Inspectors.
3. In the event of any consignments falling in the Inspector's opinion below the required standard, to remove the Association's labels from each package before it is shipped.

The Association's Committee has communicated with cross-Channel organisations and with the principal representatives of the wholesale vegetable trade, especially in Liverpool and Glasgow, and it is reasonably certain that produce graded and packed in accordance with the Association's standards will command a higher price than ungraded vegetables.

THE CATTLE INDUSTRY (EMERGENCY PROVISIONS) ACTS, 1934 AND 1935.

The total amount of payments made under the Acts to Northern Ireland owners up to and including the 30th January, 1937, was £616,206 13s 9d, and was in respect of 294,591 animals. The average amount received per head of cattle since the inception of the "Beef Subsidy" to the end of last month was therefore £2 1s 10d.

During the week ended 30th January last, payments were made to Northern Ireland owners in respect of 4,274 animals comprising 3,109 steers, 1,069 heifers, and 96 cow heifers. The total weight of these cattle was 36,225 cwt. and the total realised price £60,073 14s. 0d. The average weight of each beast was c8. 1. 25. as compared with c8. 1. 10. for the

corresponding week of 1936. The average price per head was £14 1s 0d and per cwt. 33s. 2d. as against £12 18s. 0d., and 30s. 11d. respectively during the corresponding week of 1936.

LIVESTOCK INDUSTRY BILL.

The above measure is now passing through the British Parliament and so far as Northern Ireland is concerned its chief feature is that the subsidy for beef cattle is to be continued on a permanent basis. With the object of encouraging increased production of good quality cattle within the United Kingdom it will be provided that a higher subsidy will be paid for better class cattle. It will also be provided that a lower rate of subsidy will be paid in respect of imported cattle. The provisional rates are as follows:—

ORDINARY SUBSIDY: (Steers, heifers and cow heifers. Minimum weight $6\frac{1}{2}$ cwt. live weight. Maximum weight on which subsidy is payable—13 cwt. live weight).

Home-bred animals — 5s. 0d. per cwt. live weight.

Imported animals — 2s. 6d. per cwt. live weight.

QUALITY SUBSIDY: (Steers and heifers—Minimum weight for steers $7\frac{1}{2}$ cwt. live weight, for heifers 7 cwt. live weight. Maximum weight on which subsidy is payable—12 cwt. live weight).

Home-bred animals — 7s. 6d. per cwt. live weight.

Imported animals — 5s. 0d. per cwt. live weight.

with equivalent rates in respect of carcases.

In other respects the existing certifying arrangements are likely to remain for some time substantially the same although it may be necessary to increase the certification charges (to include perhaps a charge for the examination of rejected as well as certified animals) in view of the additional work that the “quality” subsidy will cause Certifying Officers.

AGRICULTURAL NOTES.

SEASONAL FARM NOTES.

PLOUGHING.—The ploughing of stubble ground, not yet completed, and of leas, should be proceeded with at every opportunity so that this work may be finished as soon as possible and full advantage taken of suitable weather later on for the ploughing of land under root crops last year. Cross-ploughing of land intended for early potatoes can be undertaken now when the ground is in a fit condition.

POTATOES.—Potatoes stored in pits in fields should be lifted when opportunity offers and the seed for planting placed in sprouting boxes so that the tubers may be well sprouted before planting time. Lifting of potatoes from pits in good time also permits of the ground being ploughed when soil conditions are suitable.

Where fresh supplies of seed potatoes are required, the necessity of placing orders as soon as possible may again be stressed. As there has been a good demand this season for seed potatoes, particularly those from healthy stocks which have been certified by the Ministry, delay in ordering seed from such stocks may result in disappointment in obtaining sufficient supplies for requirements. Lists giving the names and addresses of growers of certified crops and of stock seed may be obtained from the Ministry free on request.

OATS.—Supplies of seed oats should also be obtained or ordered in good time. The results of oat variety trials carried out by the Agricultural Instructors during last season are given on Page 34 of this Report. Farmers who desire to obtain seed of any of the varieties mentioned should consult the Agricultural Instructor without delay for information as to where supplies of seed are likely to be obtained. The Instructor will also advise regarding the most suitable varieties.

WHEAT.—Where weather conditions prevented the sowing of autumn wheat, spring varieties may be sown during the months of February and March, when the ground is in a suitable state. Farmers, who intend to sow wheat during these months, are strongly advised to ensure that seed of a suitable spring variety is obtained, as satisfactory crops from the common winter varieties will not be obtained if sowing is not done before February. Varieties such as Red Marvel and Red Fife are suitable for sowing after January. The rate of seeding for seed of spring varieties of wheat, except Red Fife, should be from 1 to 2 stones per acre more than for winter

varieties; in the case of Red Fife, which tillers or "stools" poorly, a seeding of about 18 stones per statute acre should be given, where the seed is sown broadcast. For spring wheat, the land should be in good condition and the seed bed well prepared so that a vigorous braird and quick-growing crop may be obtained. The dressing of the seed before sowing with either "Ceresan" or "Agrosan G", at the rate of from 5 to 8 ounces per cwt. of seed, will assist in obtaining a vigorous braird and will also aid in preventing attacks of smut and other seed-borne diseases. Provided a suitable variety is sown and the land is in good condition, satisfactory crops of spring-sown wheat can be grown.

BARLEY.—The results of the barley variety trials, carried out last season by the Agricultural Instructors, are given in this Report (See page 36). It will be observed that satisfactory crops and good average yields were obtained. In view of the importance of the pig industry and of the value of barley meal in pig rations for the production of bacon of good quality, farmers, particularly those engaged in pig keeping, are strongly advised to grow even a small area of barley for pig feeding. The home production of this foodstuff will reduce the expenditure on purchased feeding stuffs considerably and will, accordingly, aid in increasing profits from pig keeping. Barley does best on light, dry soils, but will succeed on other types of soils, provided the land is not dirty, sour, or water-logged. Land following a root crop is very suitable for the growing of barley, and on such land artificial manures are usually not necessary. Barley is a good nurse crop for grass seeds and these may be sown either at the time the barley is sown or after the barley has braired, in a similar manner as with oats. Early sowing of barley is desirable and the seed should be sown towards the end of March or early in April. A seeding of about 16 stones per statute acre is suitable, where the seed is sown broadcast.

PASTURES.—Where phosphatic manures have not been applied to grassland during the winter, improvement in this year's grazing may still be obtained from an application now of Semsol or of superphosphate at the rate of from 4 to 6 cwt. per statute acre. On the lighter classes of soils, the addition of 1 cwt. of 30 per cent. potash salts per acre is beneficial and should be applied. Where there is a mat of old grass or of fog on the surface of the pasture, the land should be thoroughly harrowed before the manures are applied. An application of 1 cwt. per acre of a nitrogenous manure, such as sulphate of ammonia or nitro-chalk, during March or April, will assist in eradicating undecayed vegetation or fog and also promote the production of early grass.

SUPPLIES OF MANURES.—An estimate of the probable quantities of the various classes of artificial manures required should be made now and orders

for supplies placed. Better terms are usually obtained when all the manures required are purchased early and delivery taken before the busy spring season commences than if orders are delayed until later. When the manures are stored in a dry shed, there is little risk of deterioration, or of a loss in fertilising properties taking place. The mixture recommended for potatoes namely, 1 cwt. of sulphate of ammonia, 4 cwt. of superphosphate and 1 cwt. of muriate of potash, per statute acre can be mixed from two to three weeks before use and stored without impairing its efficiency in any way.

The mixtures and quantities of manures recommended for the different crops are given in the Annual Reports of the County Committees of Agriculture, and are also stated hereunder.

MANURIAL MIXTURES FOR FARM CROPS.

OATS.—For oats on lea ground in poor condition, and on land following potatoes, the following mixture of artificial manures per statute acre is recommended for application a few days before or at time of sowing the seed:—

- 1 cwt. sulphate of ammonia,
- 2 cwt. superphosphate,
- 1 cwt. 30 per cent. potash salts.

For oats following wild white clover lea and on other land in good condition, an application of 2 cwt. superphosphate and from $\frac{1}{2}$ to 1 cwt. 30 per cent. potash salts per statute acre increases the yield and assists in preventing lodging.

WHEAT.—An application of 1 cwt. of nitrogenous manure, such as sulphate of ammonia, nitro-chalk or nitrate of soda, per statute acre, should be applied during early April, and the braird harrowed lightly afterwards.

BARLEY.—When barley is grown after a potato or a turnip crop which has been well manured no additional fertilisers are necessary.

When grown after another cereal crop, especially if the land is not in high condition, a complete dressing of artificial manures should be applied. For this purpose an application of 1 cwt. sulphate of ammonia, from 2 to 3 cwt. superphosphate, and 1 cwt. 30 per cent. potash salts, per statute acre is suitable.

FLAX.—From 1 to $1\frac{1}{2}$ cwt. muriate of potash per statute acre should be applied before sowing the seed. On land in poor condition, the addition of $\frac{1}{2}$ cwt. sulphate of ammonia per statute acre is beneficial.

POTATOES.—Where farmyard manure is available, a mixture of 1 cwt. sulphate of ammonia, 4 cwt. superphosphate, 1 cwt. muriate of potash, along with 15 tons farmyard manure per statute acre, is recommended. The artificials can be mixed and stored for from two to three weeks before use without impairing the efficiency of the mixture.

If farmyard manure is not available, the mixture of artificials stated should be applied at the rate of 9 cwt. per statute acre.

TURNIPS.—A dressing of from 10 to 15 tons of farmyard manure, along with from 4 to 6 cwt. superphosphate, Semsol, high grade basic slag, or Gafsa rock phosphate per statute acre.

Where farmyard manure is not available, a dressing of from 1 to $1\frac{1}{2}$ cwt. sulphate of ammonia, 6 cwt. superphosphate or other phosphatic manure, and from 1 to 2 cwt. 30 per cent. potash salts per statute acre should be applied. If "finger and toe" disease is feared, basic slag should be used in preference to the other sources of phosphates.

MANGELS.—Liberal manuring of mangels is necessary to obtain best results. The following dressing per statute acre is recommended:—

- 20-25 tons farmyard manure.
- 2 cwt. sulphate of ammonia.
- 4 cwt. superphosphate.
- 4 cwt. kainit.

In addition, 1 cwt. nitrate of soda per acre, applied as a top dressing after thinning, benefits the crop.

CABBAGE AND KALE.—For these crops the following dressing per statute acre should be given:—

- 20-25 cwt. farmyard manure.
- 2 cwt. sulphate of ammonia.
- 4 cwt. superphosphate.

HAY.—A suitable top dressing for application during March to land intended for hay for cutting or for seed saving purposes is:—

- 1 cwt. sulphate of ammonia
- 2 cwt. superphosphate
- 1 cwt. 30 per cent. potash salts

per statute acre.

PASTURES.—Where the slower acting phosphatic manures, such as high grade basic slag or Gafsa rock phosphate, have not been applied during the winter months to grassland, Semsol or superphosphate can be applied at the

rate of from 4 to 6 cwt. per statute acre during the spring months. On the lighter classes of soils the application of 1 cwt. 30 per cent. potash salts per acre, in addition to the phosphatic manure, is beneficial.

For the production of early grass, 1 cwt. sulphate of ammonia or nitro-chalk per acre should be applied during the first week of April.

RESULTS OF OAT VARIETY TESTS.

As in previous years two series of oat variety tests were carried out by the Agricultural Instructors during the year 1936. In one series, certain varieties which were considered suitable for the better classes of soils were tested under comparable conditions, while in the other series, varieties which suit the poorer soils in hilly districts were included.

VARIETIES SUITABLE FOR GOOD SOILS.—For these trials a selection of six varieties for each centre was made from a list of eight varieties prescribed for testing. The varieties included those which in previous trials had given the most promising results, and also the newer varieties and strains, some of which were produced at the Ministry's Plant Breeding Station.

Particulars regarding the average yields per statute acre obtained from groups of varieties which were grown at a similar number of centres are given in the following table:—

No. of Centres.	King.		Crown.		Stormont Arrow.		Utility.		Elder.		Early Miller.		Stormont Iris.		Victory.	
	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw
	c. q.	cwt.	c. q.	cwt.	c. q.	cwt.	c. q.	cwt.	c. q.	cwt.	c. q.	cwt.	c. q.	cwt.	c. q.	cwt.
10	—	—	—	—	22	0 40	19	2 41	—	—	19	3 35	—	—	—	—
9	—	—	23	0 37	22	2 41	19	3 41	—	—	20	3 35	—	—	—	—
7	21	1 36	24	0 37	22	3 42	20	3 42	—	—	20	0 36	—	—	—	—
6	—	—	22	0 39	21	3 41	18	2 43	21	3 41	19	3 34	—	—	—	—
4	—	—	20	1 29	20	2 32	17	1 30	—	—	20	3 28	—	—	19	3 30
2	—	—	—	—	25	2 49	22	1 53	—	—	21	1 49	24	1 45	—	—

It will be observed from these averages that the variety Crown has given consistently high yields and that at most centres it proved to be superior to other varieties. This oat can be relied on to produce heavy yields of grain when grown on the better classes of soils.

Stormont Arrow has also given high average yields which are almost equal to those obtained from Crown. This variety gave the heaviest average yields in last year's trials. Stormont Arrow which was raised at the

Ministry's Plant Breeding Station from a cross between Black Potato and Victory, has short stiff straw and is not so liable to lodge as other varieties. King and Victory are two further varieties which will produce satisfactory crops on land in good condition.

Early Millar was included in these trials for the first time last season and has given good average yields. This oat was raised by the Scottish Plant Breeding Station and is of the Potato type. As its name indicates it ripens early and for this reason it may prove to be suitable for growing in the later districts in which oats of the Potato type are commonly sown. Early Millar is fairly resistant to lodging and has white, plump grain.

Stormont Iris is another new variety which ripens early. It was produced at the Ministry's Plant Breeding Station from a cross between Supreme and Victory. In the previous year's trials and again in last season's tests it produced heavy yields.

The other varieties, Elder and Utility, are of the potato type, and have also given good yields. At most centres, however, greater yields were obtained from some of the other varieties which were grown.

VARIETIES SUITABLE FOR POORER SOILS IN HILLY DISTRICTS.—In these trials, the object was to obtain information as to the cropping capabilities of some of the varieties likely to succeed best when grown on the poorer soils in mountainous districts. Six varieties were grown at all centres where the tests were conducted. The varieties included an oat raised at the Ministry's Plant Breeding Station from a cross between Potato and Sandy, and now known as Stormont Kern; a selection of a short-grained type of Tyrone Tawny, made and bulked at the Plant Breeding Station, Stormont; a selection of Sandy, called Gordon Sandy, Poland, Utility and McGillsmith Potato.

Particulars of the average results obtained per statute acre from the 9 centres at which the tests were carried out, along with the average yields from 5 centres in the previous year's trials where similar varieties were grown, are given in the following table. The true average yields for both years' tests at 14 centres are also given.

Year.	No. of Centres.	M'Gillsmith Potato.		Utility.		Short-Grained Tyrone Tawny.		Gordon Sandy.		Stormont Kern.		Poland.	
		Grain c. q.	Straw cwt.	Grain c. q.	Straw cwt.	Grain c. q.	Straw cwt.	Grain c. q.	Straw cwt.	Grain c. q.	Straw cwt.	Grain c. q.	Straw cwt.
1936	9	18 0	31	17 3	28	18 1	30	18 3	30	18 4	29	19 2	33
1935	5	17 1	39	17 2	37	16 2	37	17 2	40	18 1	37	18 1	43
1935 & 1936	14	17 3	34	17 3	31	17 3	33	18 2	34	18 3	32	19 0	37

The new variety, Stormont Kern, gave consistently high yields in both years' trials and, with the exception of Poland, it proved to be superior in yield to the other varieties tested. It ripens earlier than Poland and may thus be a valuable substitute for that variety in districts where Poland is widely grown.

Poland gave the greatest average yield in respect of both years' tests. This variety is useful for exposed situations and for poor cultural conditions generally. It is, however, late in ripening.

Gordon Sandy has given good yields in previous trials and also in those conducted during the past two seasons in which it was third in yielding capacity. The true average yield obtained from the short-grained type of Tyrone Tawny in respect of both years' trials was equal to that obtained from McGillsmith Potato and from Utility. Tyrone Tawny is very useful for growing in poor soils and is characterised by great "stooling" capacity. The short-grained type has shorter and plumper grain than that of the ordinary Tawny in cultivation.

Farmers who desire seed of any of the varieties mentioned in either of these series of trials should consult the Agricultural Instructor for the district for information regarding sources of supply of seed.

BARLEY VARIETY TESTS.

Barley meal is an ideal food for pigs, and its inclusion in the rations fed to the finishing stage encourages the production of bacon of good quality having firm, white fat. In the production of bacon pigs of the quality specified by modern requirements, barley meal has probably no equal amongst the range of foods available and suitable for pig feeding.

The cultivation of barley has not in the past been practised extensively in Northern Ireland, except in a few districts where there was a demand for the grain for malting purposes. With the recent expansion in the pig industry, the growing of barley has assumed a role of the greatest economic importance, since the use of barley meal in pig rations has become more general than formerly and since the greater part of the barley meal so used is made from imported barley, which is usually more expensive than would be the case if the barley were grown on the home farm. It is obvious, therefore, that if satisfactory crops of barley could be grown generally in Northern Ireland and the produce fed to pigs, the cost of producing bacon pigs would be reduced and at the same time the difficulties of obtaining carcasses of the desired quality would be lessened.

With these considerations in mind, the Ministry is encouraging an extension in the area under barley, and, through the medium of the Agricultural

Instructors, employed by County Committees of Agriculture, experiments and demonstrations designed to obtain information regarding suitable varieties and other matters connected with barley growing, were carried out in 1935 and again in 1936.

In the variety experiments, three different varieties were compared at each of 8 centres throughout Northern Ireland in 1935 and the same varieties at each of 8 centres in 1936. The results obtained per statute acre from each years' trials, along with the true average yields per acre in respect of both years' tests, are given in the following table.

Year.	Spratt-Archer.		Old-Common (Chevalier).		Golden Archer.	
	Grain	Straw	Grain	Straw.	Grain	Straw
	c. q.	cwt.	c. q.	cwt.	c. q.	cwt.
1936 (8 centres)	17 3	32	19 0	32	19 1	33
1935 (8 centres)	24 1	34	22 1	30	24 3	34
1935-1936 (16 centres) ..	21 0	33	20 2	31	22 0	34

Owing to the unfavourable season, the yields obtained last season were considerably lower than those in the previous year, but satisfactory crops were produced at most centres.

Golden Archer gave the highest average yield of grain in both years' tests. This variety is of comparatively recent introduction and closely resembles Spratt-Archer. Both Golden Archer and Spratt-Archer have strong straw, which is fairly resistant to lodging, and are suitable for cultivation on the heavier types of soil in good condition. Old Common or Chevalier has also given satisfactory yields in both years' trials. This is an old-established variety, having long, slender straw, and is best suited for growing on the lighter classes of soils. It ripens earlier than other varieties, and for that reason is most suitable for late districts.

These results indicate that under average conditions good crops of barley can be grown in Northern Ireland. Farmers, particularly those engaged in pig keeping, are accordingly, strongly advised to grow even a small area of this crop during the incoming season and so reduce expenditure on purchased feeding stuffs.

Barley is best grown after potatoes or turnips and, on such land, manuring is not necessary. Early sowing gives best results; the most satisfactory crops are those which are sown not later than the first week in April. A seeding at the rate of about 16 stones per acre, where the seed is sown broadcast, is suitable.

Further information relating to barley growing can be obtained either from the Ministry, or from the Instructor in Agriculture, who will visit and advise, on request.

SEASONAL LIVESTOCK NOTES.

OX-WARBLE FLY.—Cattle owners are reminded that, in accordance with the Ox-Warble Fly Order, the first dressing for the destruction of ox-warble fly maggots must be applied to cattle between the 15th and 22nd March. Subsequent dressings at intervals of 28 days must also be applied until no further maggots appear.

A number of preparations for the destruction of ox-warble fly maggots have been tested by the Ministry, and the following have been recommended for use in 1937:—"Polvo", "Cooper's Warble Fly Powder", "Cowboy", "Warblo", "Plough Brand" (Messrs. Allen and Hanbury Limited), "Young's Warble Fly Powder", and "Evan's Warble Fly Powder". Supplies of any of these preparations can be obtained from most chemists and merchants who trade in agricultural commodities.

The dressing is simple to prepare and to apply, and is inexpensive. Usually from three to four applications of the wash are required each season to destroy all the maggots. If all cattle are dressed in accordance with the Order, the pest will soon become extinct, and in view of the enormous loss which it causes to the cattle industry each year, farmers are strongly urged to comply strictly with the Order. Moreover, failure to destroy the maggots is likely to lead to a prosecution.

Supplies of the preparations should be obtained in good time, so that there will be no delay when the period for the first application of the wash arrives. Delay in applying the first dressing may allow some of the maggots to escape from the cattle and will thus aid in perpetuating the pest. Particulars regarding the regulations to be complied with under the Order are given in Circular No. 13 which also gives a list of the recommended preparations, and information relating to the preparation and application of the washes is given in Leaflet No. 64. Both these publications have been revised recently and copies of the revised editions will be sent on request.

STORE CATTLE.—Store cattle which are intended for sale when the grazing season commences should be kept in a forward thriving condition. The feeding of from 3 to 4 lb. per head daily of a mixture, such as 3 parts by weight crushed oats and 1 part by weight decorticated earthnut cake, in addition to hay or straw and roots, will aid in maintaining the animals in good condition. Store cattle in good condition are generally in better demand and realise higher prices than those in a backward condition and the increased cost of feeding will be well repaid by the enhanced prices obtained.

DISHORNING OF CALVES.—As calves will be arriving in increasing numbers from now onwards on many farms, the importance of dishorning all calves intended for sale as beef or stores before they are nine days old may again be stressed. The operation consists in rubbing the horn “buds” with a stick of caustic potash, which can be obtained from any chemist at a trifling cost. Full particulars regarding dishorning by this method are given in Leaflet No. 5. Useful hints on the rearing of calves are given in Leaflet No. 54.

SHEEP.—As the lambing season approaches, special care of the breeding ewes is necessary so that the number of losses at lambing may be kept as low as possible. The flock should be brought to a convenient field each evening so that they can be looked over at night and again early in the morning, and cases where assistance at lambing is necessary observed in good time. Before giving any assistance to a lambing ewe, the hands of the attendant should be well washed with soap and warm water to which a little mild disinfectant has been added, and subsequently lubricated with raw linseed oil. It is a good practice to apply a little mild disinfectant on the lamb’s navel in all cases after lambing. Further, as an aid in preventing the condition known as “wool ball”, any loose wool around the udders and flanks of the ewes should be removed as soon as possible after lambing has taken place.

A field of fresh young pasture should be reserved for the ewes and their lambs and the animals turned on to such pasture as lambing proceeds. Good grazing promotes the milk flow of the ewes and aids in the production of early fat lambs.

PIGS.—Sows and litters should be allowed out as much as possible from now onwards when weather conditions are suitable. A run out on fresh, clean pasture promotes good thriving and aids in preventing the development of anaemia or bloodlessness, which is common in winter litters. A satisfactory preventive of this ailment is the painting of the sow’s udder twice daily during the time she is suckling the pigs with a mixture of iron and copper salts and treacle. Full particulars regarding this treatment are given in Leaflet No. 45. This leaflet has been revised recently.

SEASONAL GARDEN AND ORCHARD NOTES.

SPRAYING OF APPLE TREES.—The spraying of apple trees with tar distillate washes should be pushed on whenever the weather is favourable as this work should be completed by the end of February. Thorough spraying is essential to success; every part of the tree above ground must be covered with the spray.

MANURING.—Individual apple trees which require nitrogenous manure should be given a dressing of sulphate of ammonia. Generally speaking

trees which did not produce at least nine inches of growth last season, or on which the bark is of a reddish brown colour, may be regarded as requiring nitrogen. The amount of sulphate of ammonia to be applied will depend largely on the nature of the soil, and the variety and age of the tree, but from 1 to $1\frac{1}{2}$ lb. per tree is the usual dressing in the case of full-grown trees. The manure should be applied to the ground around each tree outside the spread of the branches. A dressing of sulphate of potash should also be given now as apple trees respond favourably to this manure. As much as 4 cwt. per acre may be applied broadcast between the rows of trees.

CLEARING OF ORCHARD DRAINS.—Steps should be taken to see that the outlets of all orchard drains are kept clear. Where the drains have ceased to act the cause of the failure should be investigated and the drains repaired. New drains, where required, should also be made now.

PLANTING OF STRAWBERRIES.—Strawberry runners may now be planted wherever the ground is in a suitable condition. Spring planted strawberries, however, should not be allowed to fruit the first year. Blanks in the plantations made last Autumn should be made up, and all plants made firm in the ground. As soon as the ground is in a suitable condition, all weeds should be removed and the ground between the plants hoed.

CABBAGE AND LETTUCE.—Cabbage and lettuce plants, which have wintered in the seed-bed or in a nursery bed, and cauliflowers, which have wintered in a cold frame, may be planted out as soon as the soil can be got into a suitable condition. For the lettuce crop a sheltered site should, if possible, be chosen. Both crops require liberal manuring. Early spring cabbage planted out last autumn should receive a dressing of nitrate of soda at the rate of about 3 cwt. per acre. When the ground is sufficiently dry, the soil between the rows of plants should be cultivated and all weeds removed.

COLD FRAMES.—Cold frames of plants should receive more ventilation as the days lengthen and the weather improves.

RHUBARB.—New plantations of rhubarb can now be made. The ground for this crop should be deeply dug and well manured. In planting the crowns, care should be taken not to bury the "eyes" or buds too deeply. When planting is finished, the buds should be just below soil level. The soil must be made firm around the roots and afterwards a mulch of strawy manure placed over the ground. Established plants will also benefit from a heavy mulch of strawy manure.

POTATOES.—On warm soils and in sheltered positions, early varieties of potatoes can be planted now. The stock of "seed" of the later varieties of potatoes should be examined and the tubers brought into the light so as to toughen the buds.

OTHER VEGETABLE CROPS.—Early in February, seeds of broad beans and early peas may be sown in sheltered positions out of doors, and towards the end of February or early in March, if weather and soil conditions are suitable, a sowing of onions, parsnips, Brussels sprouts, cabbage and cauliflowers may be made out of doors. Particulars of vegetable growing are given in Leaflet No. 67.

FLOWERS.—Stocks of dahlia and begonia tubers should be examined and decaying ones removed. The sound tubers may now be placed in boxes of light moist soil and the boxes placed in a greenhouse or in a cold frame, or alternatively, the tubers may be planted in the soil in the frame. Seeds of half hardy annuals such as lobelia, golden-feather, ten-week-stock, etc., should be sown in boxes and these placed in a frame over a mild hot-bed. Bedding roses should be pruned about the middle of March.

SEASONAL POULTRY-KEEPING NOTES.

This is a particularly important time on the poultry farm as much of the success to be obtained later depends on the efficiency of the work carried out at this season.

HATCHING.—Hatching from heavy breeds should be proceeded with to full capacity during February, but if the pullets are to come into production early next Autumn, eggs from these breeds should not be hatched after the month of March.

Where the fertility and hatchability of the eggs are disappointing, an effort should be made to effect improvement by giving particular attention to the breeding flock and also to the management of the incubator during the incubation period.

MANAGEMENT OF BREEDING FLOCK.—Careful attention to the management and feeding of the breeding stock is essential, if eggs of high fertility and hatchability are to be produced throughout the hatching season. The birds, particularly the cockerels, should be examined occasionally to ensure that they are being maintained in a fit breeding condition, and are free from insect vermin, the presence of which will have an adverse effect on fertility.

If the birds are losing condition they cannot breed well and the fertility of the eggs will be affected. Male birds which are losing condition should receive a feed apart from the hens when they go to roost in the evenings. The addition of cod-liver oil to the mash at the rate of one quart to each cwt. of mash and the provision of a supply of green food daily for the breeding flock will assist in obtaining eggs of good fertility and hatchability. Freshly cut

turnip tops are a useful form of green food at this time of year. Particulars of suitable mashes along with useful hints on the management of breeding birds are given in Leaflet No. 83.

INCUBATION.—Faulty incubation is also a common cause of poor hatching results being obtained and particularly of a high proportion of deaths immediately before hatching out. Where the number of “dead-in-shell” is high, ventilation in the incubator room should receive attention as should also the provision of sufficient moisture during incubation. A ventilator of the “hit and miss” type placed low down in the west wall of the incubator room, is a convenient means of improving the ventilation arrangements. Where the incubator is placed in a room of the living house, it is important that a window of the room be kept open so that an adequate supply of fresh air is always provided. It is also an advantage to provide for a supply of additional moisture towards the end of the incubation period. Additional moisture can be conveniently provided by placing a tray containing peat moss or sand underneath the incubator. The peat moss or sand should be kept well moistened with hot water during the later stages of incubation.

FEEDING AND MANAGEMENT OF CHICKENS.—The chicken flock should receive particular attention and no effort spared in endeavouring to obtain success in this branch of the work. Suitable feeding, good management and strict cleanliness are essential for successful rearing. The foods used should always be of the best quality, fresh and free from mustiness and always placed before the birds in a fresh, clean condition. The feeding of poor quality, stale or musty foods often leads to the development of digestive troubles with disastrous results. Mashes for chickens can be conveniently made up at home, and by doing so, poultry-keepers can not only ensure that the ingredients used in making up the mash are of the best quality, but they can also effect economies in expenditure since home-made mixtures are generally cheaper than proprietary ready-mixed mashes. Particulars of suitable meal and grain mixtures for feeding to chickens during the rearing stages, which can be made up on the farm, are given in Leaflet No. 20. This leaflet also gives useful hints on the running of incubators and on the management of chickens generally.

USE OF COD-LIVER OIL.—Particular attention should be paid to the purchase of cod-liver oil for chicken feeding purposes. There are a number of low quality oils on the market which are of little value, and the use of such oils will not give good results. When purchasing cod-liver oil, a guarantee in respect of its vitamin content and also of its freshness should always be obtained.

HOUSING ACCOMMODATION.—The advantages of allowing ample accommodation for young chickens should not be overlooked. Overcrowding is the

most common cause of general unthriftiness and losses during the rearing stages and is, moreover, conducive to the spread of disease among the flock. Adequate accommodation should, therefore, be provided in hovers, brooders and rearing houses. Not more than 100 chicks should be placed in a hover or brooder which is advertised as being of 150 chick capacity, while an allowance of about one square foot of floor space to every two chickens in the rearing house is necessary.

SEPARATION OF SEXES.—The separation of the cockerels from the pullet chicks will provide more house room for the latter and should be done when the sexes can be distinguished. The cockerels can then be fed on a fattening ration and sold off when they reach the marketing stage.

VALUE OF SUNLIGHT.—Direct sunlight is of the greatest value for young growing chickens and the windows or shutters of the rearing house should be left open at every opportunity when weather conditions permit.

GREEN FOOD.—Green food for chickens is also very necessary, particularly where indoor rearing is practised. A supply of cabbage, kale or turnip tops should be provided.

FEEDING OF TURKEY HENS.—Turkey hens for breeding should be fed on a suitable laying mash once daily from now onwards. A suitable mash for this purpose is 3 parts bran, 4 parts pollard, 2 parts maize meal and 1 part fish meal or meat meal. In addition a grain mixture consisting of oats and cracked maize should be given in the evening before the birds go to roost. Good feeding of the breeding stock will encourage early egg laying and will also aid in producing vigorous, easily reared chicks. Information on the rearing and feeding of turkeys is given in Leaflet No. 37.

Owners of turkey hens are reminded that they can have the birds mated for a nominal fee to superior turkey cocks at County Turkey Stations established by County Committees of Agriculture. Lists giving the names and address of these Stations can be obtained free on request, from the Secretary, or Agricultural Organiser, of the County Committee of Agriculture.

ANNOUNCEMENTS AND REMINDERS.

GENERAL.

SCHOOLS.—The next session at the Ulster Dairy School, Cookstown, and at the North-West School, Strabane, begins on the 6th April. Applications for the free scholarships to the North-West School should be made by intending pupils to the Secretary, or Agricultural Organiser, of the Committee of Agriculture for the County, as soon as possible. Applications for admission to the Ulster Dairy School at which the fee for the session is only £3 3s. 0d. should be sent to the Ministry at once. Prospectuses of both Schools which contain application forms can be obtained free from the Ministry, on request.

ANNUAL REPORTS OF COUNTY AGRICULTURAL COMMITTEES.—The Annual Reports of the County Committees of Agriculture for the year 1936 will soon be available, and copies may be obtained free on request from the Secretary, or Agricultural Organiser, of the Committee of Agriculture for the County. These reports contain useful information on agricultural, horticultural, dairying and poultry-keeping subjects in addition to the detailed results of the experiments carried out by the various Instructors.

COUNTY POULTRY STATIONS AND ACCREDITED POULTRY FARMS.—Hatching eggs from superior stock which have all passed the test for Bacillary White Diarrhoea disease can be obtained from County Poultry Stations and from owners of Accredited Poultry Farms. Lists, giving the names and addresses of hen, duck and goose stations and also of turkey stations, can be obtained free on request from the Secretary, or Agricultural Organiser, of the County Committee of Agriculture. Lists of owners of Accredited Poultry Farms can be obtained free from the Ministry, on request.

SUPPLIES OF SEED OATS.—Farmers desiring supplies of seed of the newer varieties and strains of oats should communicate with the Agricultural Instructor for the district for advice as to where supplies may be obtained.

SEED POTATOES.—Supplies of seed potatoes should also be obtained without delay. Lists giving names and addresses of growers of selected stocks and of those having crops certified pure, may be obtained free from the Ministry, on request.

PLANTING OF FOREST TREES.—There is still time to plant young forest trees, but these should be put in before the end of February. Particulars regarding the Ministry's Forestry Scheme, under which young trees of various species are supplied at reduced prices to farmers, will be sent on request.

OX-WARBLE FLY.—The Ox-Warble Fly Order requires that cattle should be dressed with a suitable Derris wash between the 15th and 22nd March, and at intervals of 28 days afterwards until no further warble swellings appear. Full particulars are given in Circular No. 13 along with the names of the preparations recommended by the Ministry. Hints on the application of the washes are given in Leaflet No. 64. Neglect to destroy the maggots at the proper times may lead to a prosecution.

LECTURES AND CLASSES.

The following lectures and classes have been arranged by County Committees of Agriculture :—

LECTURES.

County.	Day & Date.	Centre.	Time.	Subject.
Armagh	Mon., 15th February.	Taniokey P.E. School.	8 p.m.	Veterinary Topics.
"	Tues., 16th February.	Tynan P.E. School.	7-30 p.m.	Fruit Growing.
"	Wed., 17th February.	Salter's Grange P.E. School.	8 p.m.	Veterinary Topics.
"	Wed., 17th February.	Lislea P.E. School, Keady.	7-30 p.m.	Fruit Growing.
"	Fri., 19th February.	Mullabawn Technical School.	7-30 p.m.	Veterinary Topics.
"	Tues., 23rd February.	Lisnadill P.E. School.	8 p.m.	Veterinary Topics.
"	Tues., 23rd February.	Recreation Rooms, Derryall, Birches.	8 p.m.	Fruit Growing.
"	Wed., 24th February.	Cloghogue P.E. School.	8 p.m.	Veterinary Topics.
"	Thurs., 25th February.	Breagh (Tartaraghan) Church Hall.	8 p.m.	Fruit Growing.
Fermanagh	Fri., 19th February.	Knockaravan P.E. School.	7-30 p.m.	Results of Agricultural Experiments.
"	Fri., 26th February.	Clabby P.E. School.	7-30 p.m.	Feeding and Care of Farm Stock.
"	Tues., 2nd March.	Lisblake P.E. School.	7-30 p.m.	Pasture Management and Results of Agricultural Experiments.
"	Fri., 5th March.	Lack P.E. School.	7-30 p.m.	do.
Tyrone	Tues., 16th February.	Minterburn P.E. School.	7-30 p.m.	Planting and Management of Fruit and Forest Trees.
"	Wed., 17th February.	Annaghmore P.E. School.	7-30 p.m.	Agricultural Topics.
"	Thurs., 18th February.	Lakemount Hall, Trillick.	8 p.m.	Planting and Management of Fruit and Forest Trees.
"	Fri., 19th February.	Ballytrea P.E. School.	7-30 p.m.	Agricultural Topics.
"	Mon., 22nd February.	Sandholes P.E. School.	7-30 p.m.	do.
"	Tues., 23rd February.	Cloughfin P.E. School.	7-30 p.m.	Cultivation of Vegetables and Bush Fruits.
"	Fri., 26th February.	Erganagh P.E. School, Castlederg.	8 p.m.	do.

CLASSES.

County.	Date of Commencement of Class.	Class Centre.	Time at which Class is held.	Subject.
Londonderry	Mon., 22nd February.	Knockagin P.E. School, Desertmartin.	7 to 9 p.m.	Poultry-keeping.
"	Mon., 22nd February.	Parochial Hall, Craigtane, Claudy.	3 to 5 p.m.	do.
Tyrone	Wed., 10th February.	St. Teresa's P.E. School, Loughmacrory.	4 p.m.	Poultry-keeping.

Each of the above classes will be continued for at least three weeks.

BROADCAST TALK.

A talk entitled "Hints to Producers on the Care and Handling of Eggs for Market " will be given by Mr. R. F. Thompson, Ministry of Agriculture, from the Belfast Station of the British Broadcasting Corporation on Friday, 5th March, at 7.30 p.m.

TRAINING FOR GIRLS.

The next session at the North West School, Strabane, and the Ulster Dairy School, Cookstown, will open on the 6th April, 1937.

The North West School, with accommodation for 24 pupils provides a sound practical training in modern economical methods of dairying, poultry-keeping, and rural housewifery. Admission to this school is by Scholarship only, which defrays the cost of tuition, board and residence. These Scholarships are provided by the various County Committees of Agriculture. Application for a Scholarship should be made to the Secretary, or Agricultural Organiser, of the Committee of Agriculture for the county in which the applicant resides. Intending applicants for Scholarships should send in their applications immediately as the number of Scholarships is limited and they are awarded to eligible candidates in the order in which applications are received. There is no qualifying examination.

The Ulster Dairy School, which is situated at Loughry, Cookstown, County Tyrone, has accommodation for 50 pupils and provides the most up-to-date training in all matters connected with women's activities in farm life. Fees for the ordinary school course of three terms are three guineas per term. Application for admission to the Ulster Dairy School should be made to the Secretary, Ministry of Agriculture, Stormont, and should be sent in at once, as equally suitable candidates are admitted in the order in which their applications are received.

School prospectuses containing application forms may be obtained from the Ministry, free of charge and post free.

AGRICULTURAL LOANS SCHEME.

The Ministry's Scheme of Loans for the Purchase of Live Stock, Seeds and Fertilisers is being continued this year on lines similar to those in operation during the year 1936.

Loans will be issued at the low interest rate of 3 per cent. and the security required will be a Promissory Note to be signed by the borrower and two approved sureties.

Loans for the purchase of live stock will normally be repayable by four instalments, the first of which will become due on the 31st December of the year following the year of issue.

Loans for the purchase of seeds and fertilisers will, if granted on or before 30th June in any year, be repayable by two instalments on the 31st December of that year and the 31st December of the following year respectively, and if granted on or after the 1st July in any year will be repayable in full on the 31st December of the following year.

Application forms may be obtained from the Ministry of Agriculture, Stormont, Belfast, Milk Recording Associations, Creameries, County Committees of Agriculture, or at any of the Royal Ulster Constabulary Barracks.

SALE OF SWINE IN BELFAST SALEYARDS.

The restrictions imposed by the Swine Fever (Belfast) Order, 1936, on the sale of swine at public sales in Belfast have been relaxed as from the 2nd February, 1937, to permit of the sale, at saleyards in Belfast duly licensed by the Ministry, of sows no longer of use for breeding purposes. Sow so exposed for sale must be moved from the saleyard under licence issued by an Inspector of the Ministry to the Belfast Abattoir or elsewhere for slaughter, or to the Maysfields inspection pens for shipment.

WARBLE FLY ORDER.

FIRST DRESSING PERIOD NEXT MONTH.

The widespread publicity given to this Order when it was first made last year, and the extent to which the provisions of the Order were observed, make it unnecessary to do more than remind all livestock producers that the first dressing period begins on Monday, 15th March, next, and extends to Monday, 22nd March. During this period all infested cattle must be treated with one of the prescribed Derris washes.

The following preparations were tested officially by the Ministry on infested cattle last year and having been proved satisfactory are accordingly recommended for the 1937 season:—

Cowboy—Harwood Bros. (Belfast), Ltd.

Evan's Warble Fly Powder—Evans Sons, Lescher & Webb, Ltd.

Plough—Allen & Hanburys, Ltd.

Polvo and Warble Fly Powder—Messrs. Cooper, McDougall & Robertson, Ltd.

Warblo—Osmond & Son, Ltd.

Young's Warble Fly Powder—Robert Young & Co., Ltd.

They can all be bought in conveniently sized packages at reasonable prices. The cost of dressing an animal four times is between a penny and two pence per head.

In no circumstances should a ready mixed wash be bought. All the above preparations are sold in powder form, in as small sizes as four and two ounce packets, and if the contents of these packages are measured out into yet smaller quantities, even one animal can be treated without waste. Full directions will be found on each package. The washes should be applied with a brush and the following points should receive careful attention:—

1. Every warble swelling both large and small on each animal on the farm should be thoroughly wetted with the wash after any crusty scales have first been removed.
2. The wash should be applied liberally, particularly in the case of rough coated cattle, but not in such quantity that it streams down their sides.
3. To avoid the possibility of overlooking warble swellings those on one side of the back bone should be treated first and then those on the other side.

Second Dressing Period: 12th to 19th April.

Third Dressing Period: 10th to 17th May.

Fourth Dressing Period: 7th to 14th June.

Read also Circular No. 13 and Leaflet No. 64, obtainable, free of charge, on application to the Ministry.

FIFTEENTH EGG-LAYING TEST AT STORMONT.

RESULTS TO THE END OF THE FIRST SIXTEEN WEEKS.

The fourth period of four weeks ended on the 21st January, 1937. There was a further increase in egg production during the period, the average for all the birds being 15.1 eggs per bird as compared with 14.5 eggs per bird in the previous period. The number of eggs laid during the period was 13,055. Of this number 11,950 or 91.5 per cent, was scoring eggs (super grade and first grade), whereas the percentage of scoring eggs in the previous period was 86.8 per cent.

The total number of eggs laid during the sixteen weeks the test has been in progress was 47,502 which is a flock average of nearly 55 eggs per bird.

The highest average egg production for the fourth period is to the credit of

the White Wyandottes in Section 1, viz., 15.9 eggs per bird, the White Wyandottes in Section 5 (a) being next with an average of 15.8 eggs per bird.

Four birds died during the period, bringing the total number of deaths since the start of the test to 17. This represents a mortality rate of 1.97 per cent. as compared with a rate of 2.3 for the corresponding four periods of last year's test.

The following are particulars of the leading pens in the various sections as at the end of the period under review:—

SECTION 1. WHITE WYANDOTTES (OPEN). 28 pens.

Position.	No. of pen.	Name and Address of Owner.	No. of eggs laid during 16 weeks.				Score Value
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	22	Mr. J. C. Stewart, Balloo, Killinchy, Co. Down.	271	146	36	4	417
	13	Mrs. J. R. Jackson, Fort View, Coleraine, Co. Londonderry.	241	176	66	1	417
2	3	Mrs. J. M. Brogden, Fernshaw, Dungannon, Co. Tyrone.	153	244	104	3	397
3	10	Mrs. D. C. Gamble, Roan Lodge, Coalisland, Co. Tyrone.	209	174	20	1	383
4	21	Mrs. H. E. Stevenson, Dreemore, Dungannon, Co. Tyrone.	103	267	126	9	370

SECTION 2. WHITE LEGHORNS (OPEN). 13 pens.

1	33	Mrs. E. Johnston, Craigboy, Donaghadee, Co. Down.	252	85	18	—	337
2	39	Mr. J. Waugh, Ballyrickard, Kilwaughter, Larne, Co. Antrim.	148	183	17	3	331
3	29	Mrs. F. R. Browne, Lakeview, Enniskillen, Co. Fermanagh.	67	223	90	4	290

SECTION 3. RHODE ISLAND REDS (OPEN). 31 pens.

1	53	Miss J. A. Irwin, Mount Irwin, Tynan, Co. Armagh.	229	234	13	—	463
2	62	Mrs. D. Patterson, Ballycastle Road, Coleraine, Co. Londonderry.	168	207	130	6	375
3	60	Mr. R. J. O'Hanlon, Violet Cottage, Unshinagh, Portadown, Co. Armagh.	205	152	14	1	357
4	59	Mrs. J. McNeill, Drain's Bay, Larne, Co. Antrim.	316	19	1	—	335

SECTION 4. ANY OTHER PURE BREED (OPEN). 16 pens.

Position.	No. of pen.	Name and Address of Owner.	No. of eggs laid during 16 weeks.				Score Value
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	86	Mr. R. Holmes, Moneycarrie, Killykergan, Coleraine, Co. Londonderry. (Buff Rocks)	188	170	76	6	358
	75	Mrs. M. Finlay, Langfield, Armoy, Co. Antrim. (Light Sussex.)	155	203	85	—	358
2	74	Miss M. Crowe, Knappagh, Killylea, Co. Armagh. (Light Sussex)	148	148	74	2	296
3	81	Mrs. H. W. Merrick, Agivey House, Aghadowey, Co. Londonderry. (Light Sussex)	81	207	24	—	288

SECTION 5(a). WHITE WYANDOTTES (STATION HOLDERS). 14 pens.

1	99	Mrs. M. Rodgers, Ballyginney, Dundrum, Co. Down.	307	133	51	2	440
	93	Mr. C. E. Croke, The Rocks, Blaney, Enniskillen, Co. Fermanagh.	158	282	87	4	440
2	91	Mr. W. A. Bell, Donaghanie, Beragh, Co. Tyrone.	162	268	84	3	430
3	95	Miss M. M'Allister, Turnpike House, Backnamullagh, Dromore, Co. Down.	107	264	139	3	371
4	89	Miss E. L. Wilson, The Hill, Moneycree, Co. Armagh.	74	273	120	3	347

SECTION 5(b). WHITE LEGHORNS (STATION HOLDERS). 10 pens.

1	105	Mrs. J. Brown, Gorsebank, Culcrum, Co. Antrim.	155	136	45	3	291
2	112	Mrs. M. Noble, Roundpark House, Killycramph, Lisnaskea, Co. Fermanagh.	67	193	48	2	260
3	111	Mrs. J. Knox, Shanmullagh, Ederney, Co. Fermanagh.	130	123	7	1	253

SECTION 5(c). RHODE ISLAND REDS (STATION HOLDERS). 20 pens.

Position	No. of pen.	Name and Address of Owner.	No. of eggs laid during 16 weeks.				Score value.
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	117	Mrs. R. J. Dunn, Ballyskeagh, Artigarvan, Co. Tyrone.	213	213	17	—	426
2	122	Mrs. W. McCallum, Aldohil House, Newtownstewart, Co. Tyrone.	113	250	59	2	363
3	127	Mrs. H. McMaster, Little Ballymena, Broughshane, Co. Antrim.	247	111	11	2	358
4	132	Mrs. J. W. Stewart, Boghill, Coleraine, Co. Londonderry.	277	48	2	0	325

SECTION 6. POULTRY CLUBS AND YOUNG FARMERS' CLUBS. 12 pens.

Position.	No. of pen.	Club and Breed.	No. of eggs laid during 16 weeks.				Score Value
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	137	Ballywalter Young Farmers' Club. Co. Down. (White Wyandotte)	181	152	65	4	333
2	145	Saintfield Young Farmers' Club. Co. Down. (Rhode Island Red)	145	184	46	1	329
3	141	Crumlin Poultry Club, Co. Antrim. (White Wyandotte)	105	197	128	14	302

“Score Value” means the total of the super grade and first grade eggs. To be graded as first grade an egg must weigh at least 2 ounces.

The pen of Rhode Island Reds entered by Miss J. A. Irwin, Mount Irwin, Tynan, Co. Armagh, has produced the highest number of scoring eggs during the first 16 weeks of the test and has qualified provisionally for the Ministry's Special Winter Egg Award and for the Challenge Cup offered by the Council of the Scientific Poultry Breeders' Association.

The pens of White Wyandottes entered by Mrs. Rodgers, Ballyginney, Dundrum, Co. Down, and Mr. C. E. Croke, The Rocks, Blaney, Enniskillen, Co. Fermanagh, in the Station Holders' Section 5 (a) occupy second place, each with a score of 23 eggs less than the score made by Miss Irwin's pen.

PRICES OF FEEDING STUFFS.

The following table shows the average retail prices per cwt. of Feeding Stuffs at 1st February, 1937, with comparative figures for the corresponding date in 1936.

	1937.				1936.			
	Price per cwt.	Protein equivalent	Price per protein equivalent	Starch equivalent	Price per unit of starch equivalent	Price per protein equivalent	Starch equivalent	Price per unit of starch equivalent
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
STARCHY FOODS:								
Maize (whole) ..	6 11	6.8	20 4	81.5	1 8	14 0	81.5	1 2
Maize Meal ..	7 3½	6.8	21 6	81.5	1 10	15 2	81.5	1 3
Bran, Red ..	9 3	10.0	18 6	45.3	4 1	14 4	45.3	3 2
Bran, White ..	10 1	10.0	20 2	45.3	4 5	16 10	45.3	3 9
Pollard, Brown ..	9 4	11.0	17 0	71.2	2 7	13 8	71.2	2 1
Pollard, White ..	10 1	11.0	18 4	71.2	2 10	14 10	71.2	2 3
Barley Meal ..	10 3	6.2	33 1	69.7	2 11	22 5	69.7	2 0
Oats ..	6 8	7.6	17 7	60.0	2 3	17 1	60.0	1 1
Wheat (Whole) ..	10 8	9.6	22 3	72.0	3 0	—	72.0	—
PROTEIN FOODS:								
Linseed Cake, home-made ..	11 7½	25.0	9 4	71.8	3 3	8 2	71.8	2 10
Linseed Cake, foreign ..	10 11½	25.0	8 9	71.8	3 1	7 5	71.8	2 7
Linseed Cake Meal ..	11 2½	25.0	9 0	72.8	3 1	7 7	72.8	2 7
Cotton Cake, decorticated ..	10 4½	35.0	5 11	71.2	2 11	4 11	71.2	2 5
Earth Nut Cake, decorticated ..	10 7	41.0	5 2	73.0	2 11	4 2	73.0	2 4
Soya Bean Meal (extracted) ..	11 0½	38.0	5 10	64.0	3 5	4 8	64.0	2 9
Bean Meal ..	11 0	20.0	11 0	66.0	3 4	8 0	66.0	2 5
Fish Meal (60% protein) ..	16 4	53.0	6 2	58.9	5 6	5 9	58.9	5 2
Meat and Bone Meal (40% protein) ..	10 9½	36.2	6 0	44.0	4 11	5 4	44.0	4 4
Meat and Bone Meal (60% protein) ..	16 5½	54.9	5 8	61.3	5 1	5 2½	61.3	4 8
OTHER FEEDING STUFFS:								
Linseed, whole ..	18 0½	19.0	19 0	119.2	3 0	17 1	119.2	2 9
Palm Nut Cake ..	9 1	17.0	10 8	70.2	2 7	9 4	70.2	2 3
Palm Nut Meal ..	9 1	17.0	10 8	78.0	2 4	9 4	78.0	1 10
Potatoes ..	4 1	0.6	136 1	18.0	4 6	147 11	18.0	4 11
Oat Straw ..	2 4	0.9	51 10	20.0	2 4	48 1	20.0	2 2
Meadow Hay ..	2 4½	4.6	10 4	37.0	1 3	11 4	37.0	1 4
Turnips ..	1 0	0.7	28 7	7.0	2 10	21 5	7.0	2 2

One of the objects of the foregoing table is to guide farmers in the economic purchase of feeding stuffs.

Ignoring their mineral content, the valuable constituents of any feeding stuff, whether home-grown or purchased, consist of:—

(1) Carbohydrates—a group of substances which include materials such as starch, sugar, etc. They supply heat or energy to the animal, and the surplus is stored by the animal as fat.

(2) Oil—which also provides heat or energy, the surplus being stored as fat. For this purpose oil is approximately $2\frac{1}{2}$ times as valuable as the carbohydrates, but its presence in the ration in excessive quantities may lower the digestibility of the ration and cause digestive troubles.

(3) Protein—The group of bodies termed protein or albuminoids contain nitrogen. Protein is the only ingredient of a feeding stuff which can produce flesh or muscle, and hence its special importance.

All animals require a certain amount of each of the above constituents, but the relative amounts depend upon the class of stock. Thus, for example, a two-year-old fattening bullock requires a relatively small amount of protein (flesh forming material). Its ration should consist mainly of foods rich in carbohydrates, i.e., fat producing substances. On the other hand, a dairy cow is producing milk, which is a substance rich in protein, and as the protein, that is flesh forming material in milk, can only be derived from the protein in the food, the ration for the dairy cow must contain considerably more protein than that for the fattening bullock.

There are very wide differences in the composition of feeding stuffs, both home grown and purchased. Some, such as oats and maize, are rich in carbohydrates, and, therefore, particularly valuable for fattening purposes, whilst others, such as decorticated cotton cake, earthenut cake and linseed cake, are rich in protein, and are chiefly valuable for their flesh and milk-producing properties.

In the following table the composition of some of the more commonly used feeding stuffs is shown:—

PERCENTAGE COMPOSITION.

	Water.	Protein.	Oil.	Carbohydrates.
Turnips (Swede)	88	1	0.2	9
Potatoes	75	2	0.1	21
Oat Straw	14	4	2	37
Meadow Hay	10	10	3	45
Pasture Grass	80	3.5	0.8	10
Cabbage	89	1.5	0.5	8
Fattening Foods :				
Oats	13	9	6	60
Maize Meal	12	10	4	70
Barley Meal	13	12	2	66
Flesh Forming Foods :				
Linseed Cake	11	30	10	35
Decorticated Cotton Cake	9	40	9	26

The farmer frequently asks what is the cheapest feeding stuff to buy. It is, however, often very difficult to give a direct answer. Much depends upon what the feeding stuff is required for, whether for fattening or milk production. Again, maize and oats are essentially fattening foods, whilst decorticated cotton cake is a flesh-forming food, and it would be just as futile to use the cost per ton to compare their values as it would be to use the cost per ton to compare the values of, say, sulphate of ammonia and superphosphate.

Foods of similar composition can, however, be compared, and it is possible for the enterprising farmer to effect considerable economies, not only in the use of home-grown feeding stuffs, but particularly in the purchase of concentrated feeding stuffs, by studying the market prices.

The starch equivalent figure is a measure of the energy, heat or fat producing value of the feeding stuff, and shows the number of pounds of starch which would be required to give the same heat or energy as 100 lb. of the feeding stuff. For example, the table on page 52 states that the starch equivalent of maize meal is $81\frac{1}{2}$, or, in other words, 100 lb. of maize meal will provide as much heat or energy as $81\frac{1}{2}$ lb. of pure starch.

The protein equivalent figure shows the number of pounds of digestible flesh or muscle producing material in 100 lb. of each of the feeding stuffs listed.

PRICES OF FERTILISERS.

The following table shows the ranges of retail cash prices of fertilisers per ton at 1st February, 1937.

				Cost of unit of fertilising ingredient at average of range of prices shown.		
				Nitrogen.	Phos. Acid	Potash
Nitrogenous Manures						
Nitrate of Soda (15%N.)	£	s. d.	£ s. d.	10/11 $\frac{3}{4}$		
Sulphate of Ammonia (20.6%N.)	7	3 6	8 10 0	7/7 $\frac{1}{2}$		
Nitro Chalk (15.5%N.)	7	10 0	8 10 0	10/3 $\frac{1}{2}$		
Phosphatic Manures						
Superphosphate (16% S.P.A.)	3	10 0	4 5 0		4/10	
Semsol (5% S.P.A. 15 $\frac{1}{2}$ % P.A.)	3	0 0	3 12 6		3/2 $\frac{3}{4}$	
Basic Slag (18% P.A.)	3	10 0	4 0 0		4/2	
Gafsa Mineral Phosphate (26% P.A.)	2	12 0	3 5 0		2/3	
Potash Manures						
Kainit (14% P.)	3	0 0	4 5 0			5/2 $\frac{1}{2}$
Potash Salts (20% P.)	4	0 0	4 15 0			4/4 $\frac{1}{2}$
Potash Salts (30% P.)	5	0 0	5 15 0			3/7
Muriate of Potash (50% P.)	8	0 0	9 10 0			3/6
Agricultural Salt	1	15 0	3 10 0			

Abbreviations:—N=Nitrogen. S.P.A.=Soluble Phosphoric Acid. P.A.=Phosphoric Acid. P.=Potash.

The cost of the unit of fertilising ingredient is determined by dividing the price per ton by the percentage of the ingredient contained in the manure, and this method of determining values is the only sound basis on which two grades of a manure which supply the same fertilising ingredient can be compared. The price per ton is not a reliable guide as to which is the better value for money. For example, in the table of prices it is seen that the average of the range of prices for 14% Kainit is £3 12s. 6d. per ton, and for 30% Potash Salts £5 7s. 6d. per ton, and it might be concluded that the Kainit was the better value for money. This is not so. The 30% Potash Salts contains more than twice as much Potash as the Kainit, and is therefore a cheaper source of potash when the price is even double that at which the Kainit is offered. The cost of a unit of potash in the 30% Potash Salts is seen to be only 3/7d. whereas the cost of a unit of potash in Kainit is 5/2½d. At the prices ruling for these manures, 30% Potash Salts is, therefore, better value for money than Kainit. Similarly, it is seen that at the prices prevailing Gafsa Mineral Phosphate is a cheaper source of Phosphoric Acid than Basic Slag, and that Sulphate of Ammonia is the cheapest source of Nitrogen.

In connection with the costs of the units of Phosphoric Acid as shown in the table on page 54, it should be noted that in the case of Superphosphate, the cost is that of a unit of Soluble Phosphoric Acid; whereas in the cases of Basic Slag, Semsol and Gafsa Mineral Phosphate, the figures represent the cost of a unit of insoluble Phosphoric Acid. It would not, therefore, be correct to compare the unit price of the phosphoric acid in Superphosphate with those of the phosphoric acid in the other three.

PRICES OF FAT STOCK.

The following were the average prices per live cwt. of bullocks and heifers, sold at Belfast Auction Marts during each of the four weeks ended 26th January, 1937:—

Week ended.		Bullocks.		Heifers.	
		s.	d.	s.	d.
5th January	...	33	6	...	34 6
12th January	...	33	9	...	33 3
19th January	...	33	3	...	33 3
26th January	...	33	6	...	33 9

PRICES OF LIVE STOCK.

Average Prices of Live Stock at Fairs during the month of January, 1937.

Date	Fair	Calves (under 9 months)	Store Cattle	Fat Cattle (18 months over)	Springers		Milch Cows	Fat Lambs (under 12 months old)	Fat Sheep (over 2 years old)	Young Pigs
					Cows	Heifers				
1	Moy	Per head £ s.	Per cwt. Live weight. 29/- to 33/6	Per cwt. Live wgt. 31/6	Per head £ s. 15 12/6	Per head £ s. 12 17/6	Per head £ s. 15 15	Per head £ s. —	Per head £ s. —	Per head £ s. —
5	Omagh	5 5	32/- to 33/-	32/6	15 0	13 0	12 10	*1 12/6	*1 15	—
6	Londonderry	—	27/6 to 34/-	32/-	16 15	15 15	—	—	—	1 6
6	Rathfriland	4 12/6	25/- to 32/-	32/-	18 10	17 0	16 0	*1 19/- } †1 0 }	†1 17/6 } †1 9 }	1 5/6
7	Ballymoney	5 11	28/- to 34/-	31/-	14 5	13 5	13 7/6	—	—	1 7/6
7	Strabane	—	30/6 to 32/-	31/6	14 0	—	13 0	—	—	—
8	Ballygawley	—	28/- to 35/6	31/-	15 0	—	14 0	—	—	1 12/6
8	Irvinestown	5 0/9	31/- to 33/-	29/-	15 0	13 0	—	†1 5	†1 15	1 7/6
11	Enniskillen	4 7/6	24/- to 29/-	31/-	16 10	13 10	14 10	—	—	1 7/6
13	Crossgar	—	30/- to 32/-	—	16 15	—	15 0	—	—	1 14
16	Portadown	4 4/6	29/- to 33/-	31/-	16 0	14 0	15 0	—	—	1 10
18	Camldough	4 10	23/- to 30/-	32/-	16 10	15 0	13 10	*1 12/6	*1 10	—
19	Claudy	—	27/6 to 34/-	—	14 10	13 0	—	—	—	1 4
20	Lisnaska	4 8/3	26/- to 31/6	31/-	15 0	14 10	14 0	—	—	1 10
21	Ballynahinch	—	29/- to 31/-	—	17 5	—	16 0	—	—	1 15
21	Money more	4 8/9	32/- to 36/-	30/6	17 10	—	15 15	—	*1 15	7/6
22	Fintona	4 17/9	32/- to 33/-	32/-	17 0	—	15 0	—	*1 12/6	1 8
28	Antrim	—	28/- to 32/-	31/-	—	14 0	—	—	—	1 10
29	Castlederg	3 10	31/- to 33/-	32/6	13 0	—	—	*1 10	*1 10	1 5
29	Killylea	—	29/- to 33/6	31/-	16 0	—	14 10	—	*1 15 } †1 9 }	—
30	Ballymena	6 11/3	24/- to 36/-	—	21 0	21 0	20 10	—	—	1 11

* Downs and Cross.

† Long Wools.

† Mountain.

IMPORTS AND EXPORTS.

Table showing the Imports and Exports through Northern Ireland ports of certain Agricultural Products during the month ended 31st December, 1936, and the twelve months ended 31st December, 1936, with comparative figures for the corresponding periods in 1935.

(These figures are supplied through the courtesy of the Ministry of Commerce and are subject to revision).

COMMODITY	IMPORTS.			EXPORTS.		
	Month ended 31st December		Twelve months ended 31st December	Month ended 31st December		Twelve months ended 31st December
	1936	1935	1936	1936	1935	1936
Bacon cwt.	1,209	1,651	17,879	34,860	31,735	404,262
Hams cwt.	520	663	9,526	15,506	13,075	149,288
Pork cwt.	—	—	69	4,944	4,377	41,831
Butter cwt.	5,488	6,410	126,600	147	226	6,601
Eggs gt. hds.	8,390	8,639	80,523	136,154	131,600	3,497,175
Oat Products (inc. Oatmeal) cwt.	1,729	3,397	27,925	9,996	8,528	79,877
Potatoes tons	8	11	287	*21,887	*31,917	*230,608
Poultry cwt.	1	—	136	22,918	18,471	177,712
Grass Seeds .. cwt.	2,626	2,823	14,210	15,776	32,900	325,819
						277,085

* These figures represent the quantities of potatoes inspected for shipment by the Ministry.

There were no imports of oats direct from abroad during December, 1936. During December, 1935, 15,714 cwts. of oats were imported.

SHIPMENTS OF LIVE STOCK.

Statement showing the Shipments of Live Stock through Northern Ireland Ports during the months of January 1937, December, 1936, and January, 1936.

PORTS OF :—	CATTLE.					SHEEP.			PIGS.		
	Fats.	Stores.	Milch Cows.	Springers.	Calves.	Total.	Fats.	Stores.	Lambs.	Total.	Horses
Belfast	7,001	3,707	983	46	—	11,737	4,840	—	—	4,840	7,288
Larne	—	1,312	—	—	—	1,312	—	—	—	—	2,654
Londonderry ..	434	4,275	22	27	124	4,882	1,712	—	—	1,712	620
Newry	28	678	—	—	—	706	—	—	—	—	—
Total, January, 1937	7,463	9,972	1,005	73	124	18,637	6,552	—	—	6,552	10,562
											168
Total, December, 1936	5,237	3,679	962	82	143	10,103	5,350	—	—	5,350	3,704
											212
Total, January, 1936	9,714	10,981	1,043	68	925	22,731	3,225	—	—	3,225	5,310
											1
											5,311
											335

Table showing the numbers of Live Stock (1) exposed for sale and (2) sold at 18 fairs in Northern Ireland during the months of January, 1936, December, 1936, and January, 1937.

Description of Live Stock.	January, 1936.		December, 1936.		January, 1937.	
	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.
Store Cattle ...	5,774	4,049	4,694	3,302	4,482	3,122
Fat Cattle ...	1,574	1,447	1,131	983	1,709	1,486
Dairy Cattle ...	1,086	890	1,065	809	805	633
Sheep ...	131	122	283	234	161	129
Lambs ...	303	253	218	141	193	127
Young Pigs ...	2,844	2,144	3,093	2,553	3,440	2,350

The offerings of store cattle at fairs last month were generally on the small side for the time of year and trade in this section was steady throughout at firmer rates. Buyers were chiefly interested in young cattle showing quality and condition, especially nice coloured polly bullocks and heifers of from 1 to 1½ years old, and in many instances where supplies of these were limited prices recorded further increases. Graziers were active in some districts but, on the whole, small stores were in quiet demand and rough or thin cattle were slow to cash at recent prices. Fat cattle were shown in larger numbers and with trade continuing on fairly brisk lines good clearances were made at firmer rates. Fat cows and bulls also met a good enquiry and sales were easily effected at recent prices. There were smaller turnouts of dairy cattle and the best sorts experienced a very good demand and recent high prices were firmly held and in some cases exceeded. A strong enquiry came for nice young cows suitable for the cross-channel trade. The smaller supplies of sheep and lambs were in moderate request. Fat animals ready for butchering were the best sellers. The slightly increased supplies of young pigs were in duller request than of late and values tended slightly downward. Good quality brood sows were scarce and in firm request at around late rates.

This report will be sent free monthly as issued on application being made to the Secretary, Ministry of Agriculture, Stormont, Belfast.

10th February, 1937.

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MINISTRY OF AGRICULTURE. List of Leaflets and other Publications.

LEAFLETS.

- | | |
|---|---|
| <p>No. 1. Flax Seed, 1936.
 " 2. Improvement of Farm Poultry.
 " 3. Feeding for Egg Production.
 " 4. Marketing of Eggs.
 " 5. The Dishorning of Calves.
 " 6. The Packing of Apples in Standard Boxes.
 " 7. Potato Trials.
 " 8. Seed Testing for Farmers.
 " 9. The Renovation of Orchards.
 " 10. Fruit Tree Pests—Capsid Bugs.
 " 11. Fruit Tree Pests—Aphides and Apple Sucker.
 " 12. Fruit Tree Pests—Caterpillars.
 " 13. Contagious Abortion in Cattle.
 " 14. Cheese-making on the Farm.
 " 15. Suitable Varieties of Fruit.
 " 16. The Feeding of Dairy Cows.
 " 17. Home Bottling of Fruits and Vegetables.
 " 18. Marketing of Dead Poultry.
 " 19. How to Feed Linseed.
 " 20. The Hatching and Rearing of Chickens.
 " 21. The Uses and Advantages of Portable Poultry Houses.
 " 22. Leather-Jacket Grubs.
 " 23. The Handling and Care of Wool.
 " 24. Fluke in Sheep.
 " 25. The Rearing and Management of Young Horses.
 " 26. Ordnance Survey Maps for Farmers.
 " 27. How to Keep Eggs Clean.
 " 28. The Construction of a Laying House for Poultry.
 " 29. The Selection and Breeding of Laying Hens.
 " 31. Coccidiosis in Poultry.
 " 32. Roup of Poultry (Fowl Pox).
 " 33. Spraying Calendar for Apple Orchards.
 " 34. The Pruning of Apple Trees.
 " 35. The Fattening of Pigs.
 " 36. Advantages of Milk Recording.
 " 37. The Raising and Fattening of Turkeys.
 " 38. The Destruction of Charlock.
 " 39. The Production of Clean Milk.
 " 40. The Laying Down and Management of Temporary Pastures.
 " 41. Blackleg, Blackquarter or Quarterill.
 " 42. The Purchase of Balanced Rations for Dairy Cows.
 " 43. Tuberculosis in Poultry.</p> | <p>No. 44. Results of Crop Experiments, 1935.
 " 45. The Breeding and Rearing of Pigs.
 " 46. Hints for Winter Egg Production.
 " 47. The Care and Management of Sheep.
 " 49. American Gooseberry Mildew.
 " 50. Potato Blight.
 " 51. Butter-making on the Farm.
 " 52. Gapes in Chickens.
 " 54. The Breeding and Rearing of Calves.
 " 55. Destruction of Ragwort or Benweed.
 " 56. Identification of Egg Supplies.
 " 57. How to have Eggs of First Quality.
 " 58. How the Fertilisers and Feeding Stuffs Act benefits the Farmer.
 " 59. Bacillary White Diarrhoea (Pullorum Disease).
 " 60. Advantages of Winter Agricultural Classes.
 " 61. The Care and Management of Breeding Bulls.
 " 62. The Production of Timber on the Farm.
 " 63. Sheep—Castration, Docking, Foot-Rot and Care of Feet.
 " 64. The Destruction of Warble Fly Maggots in Cattle.
 " 65. The Packing of Apples in Barrels.
 " 66. Seed Testing Facilities for Traders.
 " 67. The Cultivation of Vegetables.
 " 68. The Cultivation of Strawberries.
 " 69. The Construction of Piggeries.
 " 70. Ringworm.
 " 71. The Cultivation of Raspberries.
 " 72. Tree Planting for Shelter and Ornament.
 " 73. The Propagation and Maintenance of Healthy Stocks of Potatoes.
 " 74. New Pure Strains of Flax.
 " 75. Pig Production and the Pigs Marketing Scheme.
 " 76. Acarine (Isle of Wight) Disease of Bees.
 " 77. Licensing of Milk Producers and Distributors.
 " 78. Graded Milk.
 " 79. The Picking and Storing of Apples.
 " 80. Hoose or Husk in Farm Stock.
 " 81. The Construction of Cow Houses.
 " 82. White Scour in Calves.
 " 83. The Care, Management and Feeding of the Poultry Breeding Stock.</p> |
|---|---|

Any of the above leaflets may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

CIRCULARS.

- No. 1. Phosphatic Fertilisers.
 " 5. Why Pay a Tax on the Horns of Cattle ?
 " 8. Basic Slag.
 " 9. Smut in Oats.
 " 10. Purchase of Fertilisers and Feeding Stuffs.
 " 11. Fertilisers and Feeding Stuffs Act—General Summary.
 " 12. The Treatment of Liver Fluke.
 " 13. The ox-Warble Fly.
 " 306. Fertilisers and Feeding Stuffs Act, 1926—Revision of Regulations.

MISCELLANEOUS PUBLICATIONS.

Store Cattle.
 Reports on Egg-Laying Tests.
 Crop Insurance.
 List of Growers of Certified Crops of Immune Varieties of Potatoes.
 List of Growers of Certified Crops of Non-Immune Varieties of Potatoes.
 The Ministry's Monthly Report.
 Register of Premium Stallions.
 Guide to the Live Stock Breeding Act (Northern Ireland), 1922.
 Guide to the Marketing of Fruit Act (Northern Ireland), 1932.

Any of the above publications may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

The following publications can be obtained from His Majesty's Stationery Office, 80 Chichester Street Belfast, at the prices stated :—

- (1) The Annual Report of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
- (2) Annual Report upon the Agricultural Statistics of Northern Ireland. Price 2/- net.
- (3) The Journal of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
- (4) The Agricultural Output of Northern Ireland, 1925. Price 2/6 net.

